

Service Manual

General Description

Adjustment Procedures

Block/Schematic Diagrams

Exploded Views/Parts List

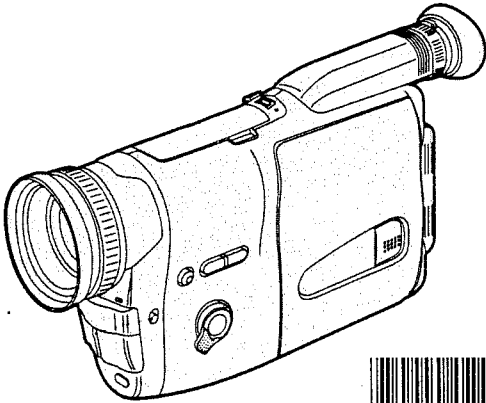
Panasonic **S-VHS** **625** **VHS** **PAL**

Hi-Fi HQ

S-VHS-C Movie

NV-SX3EG/B

DL-MECHANISM



VIDE-V16677

SPECIFICATIONS

ITEM	SPECIFICATION	ITEM	SPECIFICATION
POWER	Source: Battery Pack; 4.8 V AC Adaptor; 6.0 V Consumption; 8.0 W (Battery operation)	VIDEO	HEADS: 4 rotary heads, 1 flying erase head OUTPUT: AV OUT (M3); 1.0 Vp-p 75Ω unbalanced S-VIDEO OUT; 1.0 Vp-p 75Ω unbalanced
VIDEO RECORDING SYSTEM	4 rotary heads, helical scanning system PAL	AUDIO	HEAD: 1 Stationary head (Normal-Mono) 4 rotary heads; 2 channels (Hi-Fi Sound-Stereo) OUTPUT: AV OUT (M3); -6 dB, 47 kΩ loaded/less than 1 kΩ INPUT: MIC IN (M3); -70 dBV/4.7 kΩ or more unbalanced
FM AUDIO RECORDING SYSTEM	4 rotary heads, helical scanning system	Operating Temperature	0~40 °C
TAPE FORMAT	S-VHS-C/VHS-C Cassette Tape (Tape width 12.7 mm)	Operating Humidity	10~80 %
TAPE SPEED	23.39 mm/s Record/Playback Time: 45 min. with NV-SEC45XD FF/REW Time: less than 5 min. with NV-SEC45XD	WEIGHT	Approx. 800 g (without Battery Pack)
CAMERA	PICK-UP ELEMENT: CCD (Charge Coupled Device)	DIMENSIONS	86(W) × 143(H) × 267(D) mm
	STANDARD ILLUMINATION: 1,400 lux	STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack 1 pc. Cassette Adaptor 1 pc. Shoulder Strap 1 pc. Audio/Video Cable 1 pc. DC Input Cable 1 pc. Battery for Cassette Adaptor Operation 1 pc. Battery for Remote Controller 1 pc. 21 pin Adaptor 1 pc. S-Video Cable 1 pc. AC Cable 1 pc. Remote Controller 1 pc. Remote Controller Holder
	MINIMUM REQUIRED ILLUMINATION: 1 Lux (Low Light Mode)		
	LENS: 14:1 Wide-angle/Variable Speed Power Zoom Lens with Digital AI Auto Focus, Auto Iris, Auto Focus System, F1.4 (3.9~54.6 mm), Filter Diameter 43 mm		
	IMAGE SENSOR: 1/3 inch CCD Image Sensor		
	VIEWFINDER: 0.5 inch Electronic Viewfinder		

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

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△ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

INTRODUCTION 1

This Service manual contains technical information which will allow service personneles to undrstand and service this model.

Section 1 presents you with some general information of features and controls, enabling you to become familiar with each function.

Section 2 contributes to your electrical adjustment as well disassemble and replacement procedures.

Section 3 contain block diagram which offers you information for checking and undrstanding each circuit. Schematic diagrams which give you detailed information such as waveforms, vlotage data, function e. t. c. . .

Section 4 contain exploded views and parts list.

Please place orders using the parts list and not the drawing reference numbers.

If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

Note 1: Adjustment Procedure for Mechanism-Chassis is separate volume from this model.

Please refer to following manunal for detail of adjustment procedure for Mechanism-Chassis.

Order number for adjustment procedure of Mechanism-Chassis : VMD9412M130.

Note 2: Adjustment Procedure for Camera-unit is separate volume from this model.

Please refer to following manunal for detail of adjustment procedure for Camera.

Order number for adjustment procedure of Camera : VMD9606M136.

Note 3: This Movie camera uses AC Adaptor is VSK0317C.

The Service Manual for AC Adaptor is VSK0317C is separate volume.

Please refer to following manual for detail of VSK0317C.

Order number for AC Adaptor is VSK0317C. : VMD9501M104.

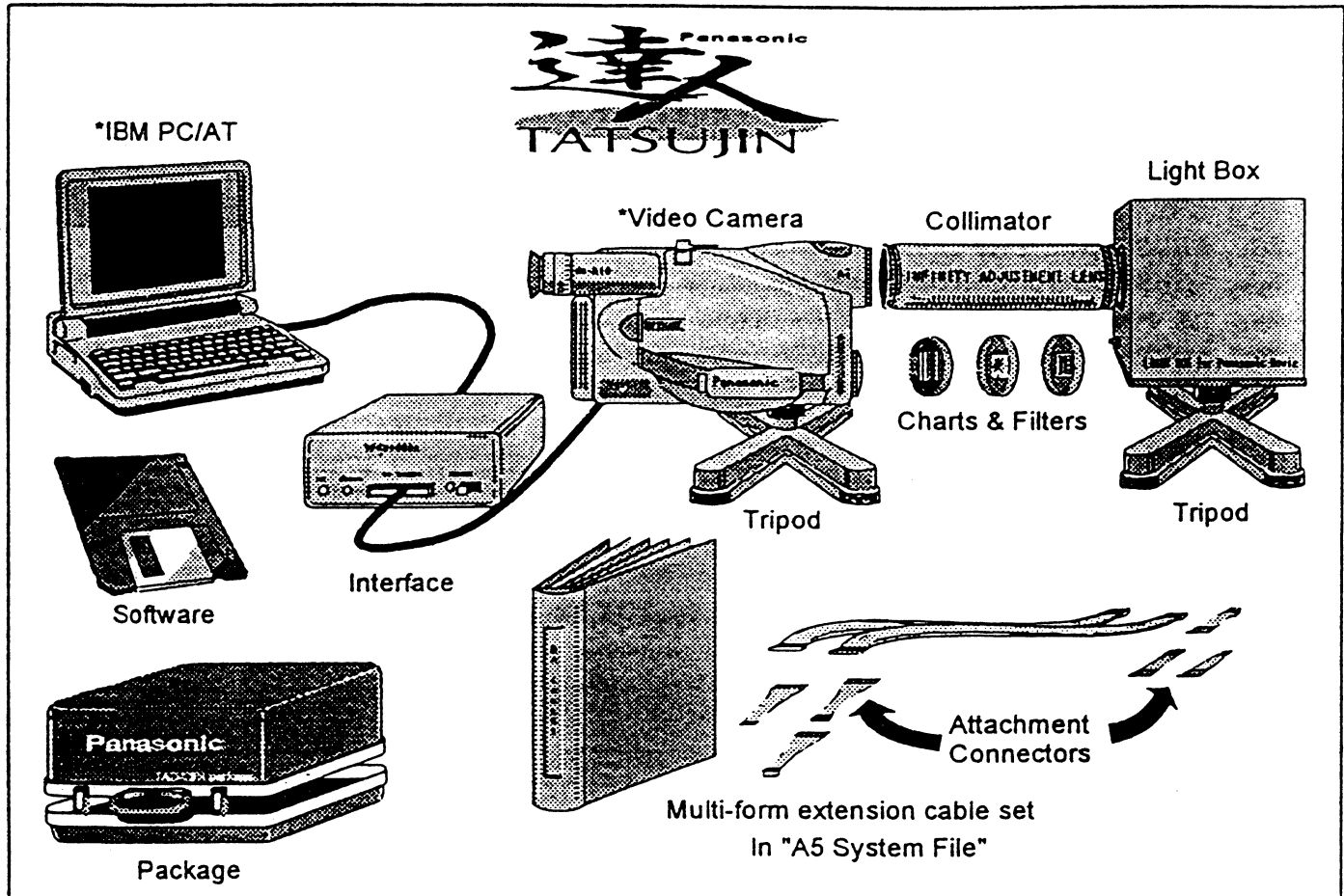
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Technical Information

Subject: Introduction of new service device kit "TATSUJIN"(VED95TTJ).



A new service device kit for Video Camera, "TATSUJIN" Kit, is now available from Panasonic. "TATSUJIN" is a Japanese word which means a specialist, expert, or master in English. This naming was made because the kit will make you a "TATSUJIN" of Panasonic Video Camera servicing. The "TATSUJIN" it consists of the following 3 items which are simply organized in a small package. All of which will drastically improve your productivity of Video Camera servicing in terms of Diagnosis, Adjustment, and Confirmation.

1. PC-EVR. (Interface, Software, Connecting Cables)

It connects a Camera to your IBM PC/AT so that the adjustment and trouble-shooting can be done easily on PC screen.

The time used to take by the camera adjustment will be reduced more than 60%. In addition, its diagnosis support function helps you to improve the service efficiency drastically.

The conventional EVR(VFK0644) will be replaced by this new computer-aided system.

Note: *PC and *Camera are not included in the kit. The minimum requirement of the PC is 80286 CPU, 1MB RAM, and MS-DOS 3.2. For further information, please contact Video Equipment Division.

2. Optical Set. (Collimator, Charts & Filters, Light Box, Tripods)

All of the optical devices which are indispensable to service a camera but used to take a huge space to set up, are now drastically shrunk into a compact "Desk-top space".

Now you can easily aim various charts, COLOR-BAR, GRAY-SCALE, HUNTING, and WHITE, by simply attaching them to the collimator which is inserted in a compact light box.

So that you do not have to worry about restricting external light and measuring the distance from the chart.

3. Multi-form Extension Cable Set.

Now you can make any kind of extension cable required, by simply changing the attachment connectors.

All of the connectors which cover all extension cables since 1990, are simply organized in a "A5 System file".

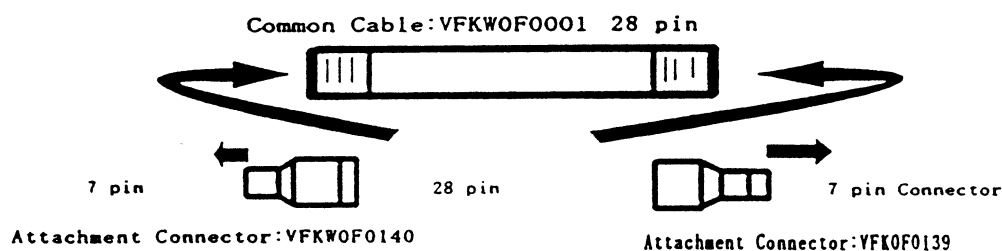
When you need a new connector for a new model it can be purchased at extremely low price.

Note: Example for new type extension cables.

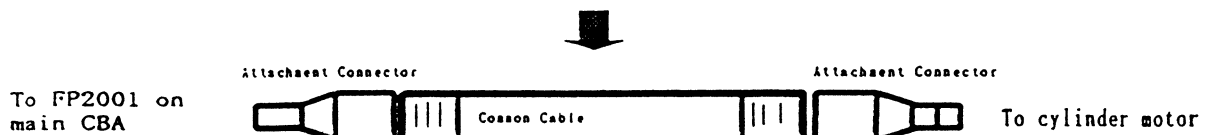
How to use the new type extension cables are as follows.

(This model requires new extension cables between FP2001 (Main) and CYLINDER.)

1. Attach the attachment connector (VFKWOF0139 & VFKWOF0140) to Common Cable (VFKWOF0001) as follows. Please check the direction of conductors between attachment connector and Common Cable.



2. Connect the attachment connector (VFKWOF0139) to the Cylinder Motor.
3. Connect the attachment connector (VFKWOF0140) to the FP2001 on Main C. B. A.



Service caution.

1-1. Service Extension Cables.

Use the following extension cables when checking or adjusting individual circuit boards.

Ref	Part No.	PIN	Part Name	Connection	Q'ty	Remarks
①	VFK0670	18	Flat Cable	FP6001(Main) ~ Mech. Chassis	1	
②	VFK0670	18	Flat Cable	FP2002(Main) ~ Capstan Motor	1	
③	VFK0978	6	Flat Cable	FP6002(Main) ~ Mech. Chassis	1	
④	VFK0929	12	Flat Cable	PP201(SENSOR) ~ CCD	1	
⑤	VFK0980	9	Flat Cable	FP4001(Main) ~ A/C HEAD	1	
⑥	VFK0913	18	Flat Cable	FP701 (Main) ~ LENS UNIT	1	
⑦	VFKW0F0139	7	Attachment Connector	FP2001(Main) ~ CYLINDER	1	Included in Tatsujin-Kit
	VFKW0F0140	7	Attachment Connector		1	
	VFKW0F0001	28	Common Cable		1	
⑧	VFK0668	24	Extension Cable	PS1001(Main) ~ PP1601	1	

How to use extension cables.

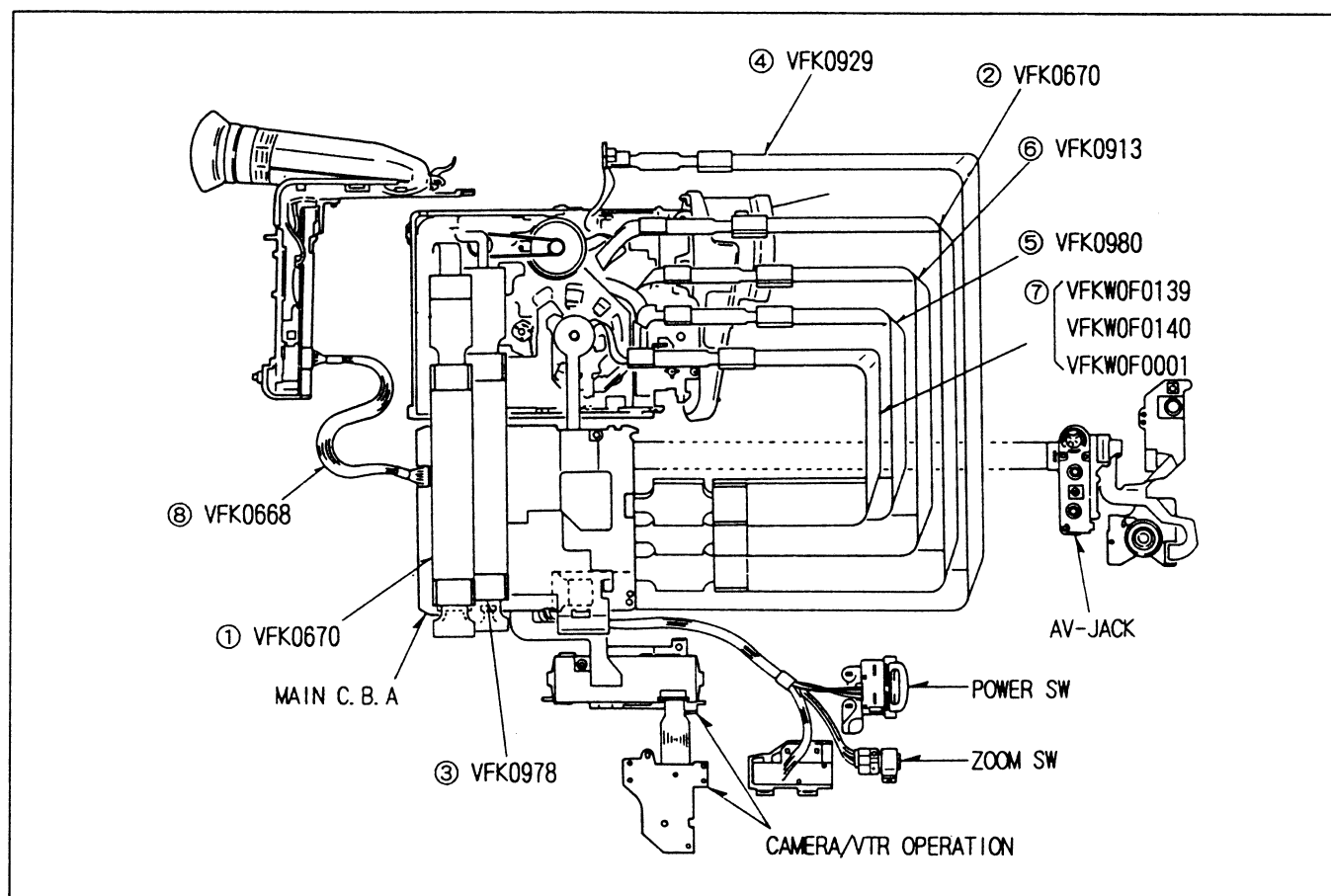


Fig. T1

Note 1: For Serviceing, remove the 4 parts from the side case(L).

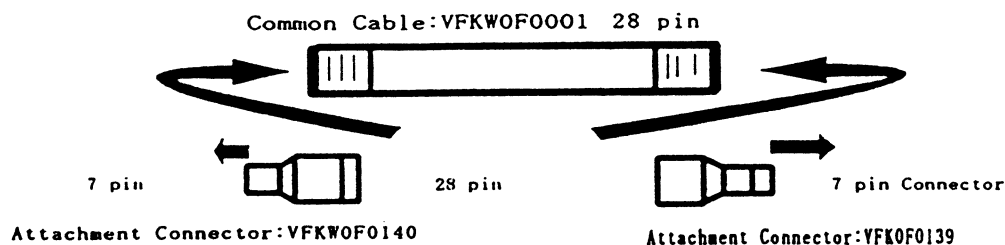
- 1). AV-JACK
- 2). POWER SW
- 3). ZOOM SW
- 4). CAMERA/VTR OPERATION

Note:2

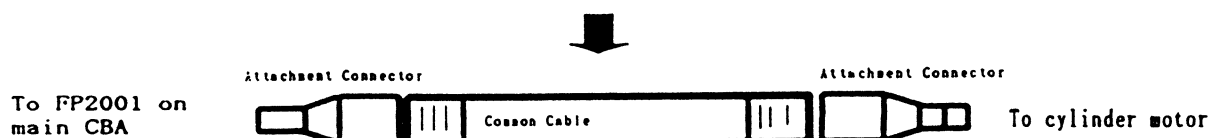
How to use the new type extension cables are as follows.

(This model used new extension cables between FP2001(Main) and CYLINDER.)

1. Attach the attachment connector(VFKWOF0139 & VFKWOF0140) to Common Cable(VFKWOF0001) as follows. Please check the direction of conductors between attachment connector and Common Cable.



2. Connect the attachment connector(VFKWOF0139) to the Cylinder Motor.
3. Connect the attachment connector(VFKWOF0140) to the FP2001 on Main C. B. A.



1-2. Service Extension Cables. (In case of Tatsujin Cable)

Use the following extension cables when checking or adjusting individual circuit boards.

Ref	Part No.	PIN	Part Name	Connection	Q'ty	Remarks
①	VFKWOF0033	18	Attachment Connector	FP6001(Main) ~ Mech. Chassis	1	Included in Tatsujin-Kit
	VFKWOF0055	18	Attachment Connector		1	
	VFKWOF0001	28	Common Cable		1	
②	VFKWOF0033	18	Attachment Connector	FP2002(Main) ~ Capstan Motor	1	
	VFKWOF0055	18	Attachment Connector		1	
	VFKWOF0001	28	Common Cable		1	
③	VFKWOF0128	6	Attachment Connector	FP6002(Main) ~ Mech. Chassis	1	
	VFKWOF0127	6	Attachment Connector		1	
	VFKWOF0001	28	Common Cable		1	
④	VFKWOF0118	12	Attachment Connector	B201 (SENSOR) ~ CCD	1	
	VFKWOF0117	12	Attachment Connector		1	
	VFKWOF0001	28	Common Cable		1	
⑤	VFKWOF0132	9	Attachment Connector	FP4001(Main) ~ A/C HEAD	1	
	VFKWOF0131	9	Attachment Connector		1	
	VFKWOF0001	28	Common Cable		1	
⑥	VFKWOF0111	18	Attachment Connector	FP701 (Main) ~ LENS UNIT	1	
	VFKWOF0112	18	Attachment Connector		1	
	VFKWOF0001	28	Common Cable		1	
⑦	VFKWOF0139	7	Attachment Connector	FP2001(Main) ~ CYLINDER	1	
	VFKWOF0140	7	Attachment Connector		1	
	VFKWOF0001	28	Common Cable		1	
⑧	VFKWOF0030	24	Attachment Connector	PS1001(Main) ~ PP1601	1	
	VFKWOF0063	24	Attachment Connector		1	
	VFKWOF0001	28	Common Cable		1	

How to use extension cables.

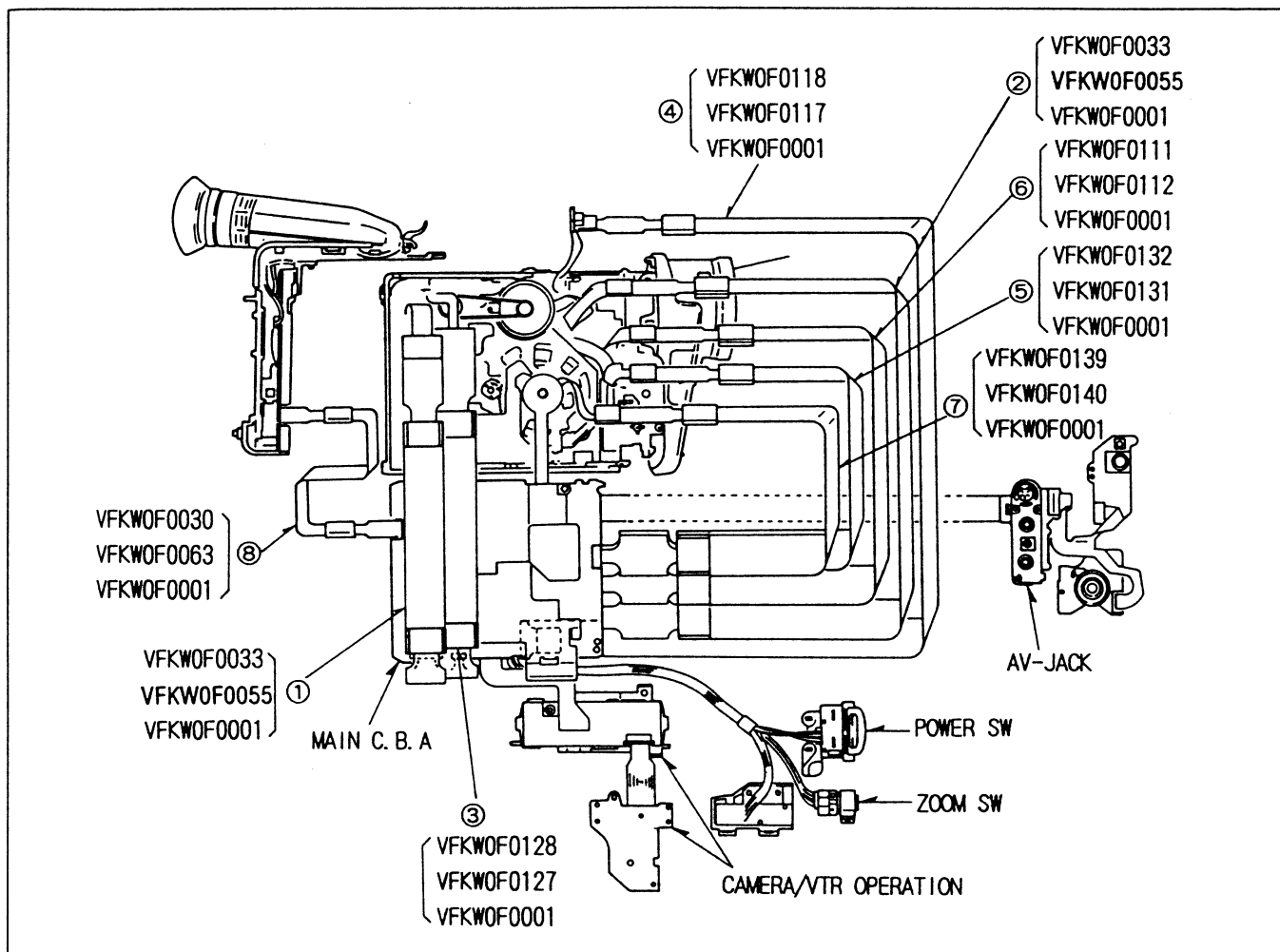


Fig. T2

The Built-in Lithium Battery

■ Charging the Built-in Lithium Battery

The internal clock works even when the Movie Camera is turned off, and it consumes power from the built-in lithium battery. When the Movie Camera is in operation it automatically charges this battery. However, if the Movie Camera is not used for a very long time, the lithium battery can become exhausted. The exhausted battery can be charged in the following way:

■ How to Determine Whether the Built-in Lithium Battery Is Exhausted

1 Turn out the [POWER] Switch to switch the Movie Camera on.

- If the [] Indication in the Finder flashes the built-in lithium battery is exhausted.

■ Charging the Built-in Lithium Battery and Other Necessary Operations

[1] Connect the AC Adaptor to the Movie Camera.

- The Movie Camera does not need to be turned on.

[2] Leave the Movie Camera in this condition for approximately 4 hours.

- After charging for 4 hours, the built-in lithium battery can maintain the operation of the clock for approximately 3 months.

[3] Set the clock to the current date and time.

2. HOW TO REPLACE THE LITHIUM BATTERY (PROCEDURES)

1. Remove the EVF C.B.A. from Rear Case.
(Remove the 4 Screw from Rear Frame)
2. Unsolder the Lithium battery "VL2020/1HF" and then replace the new one. (See Fig. B1)

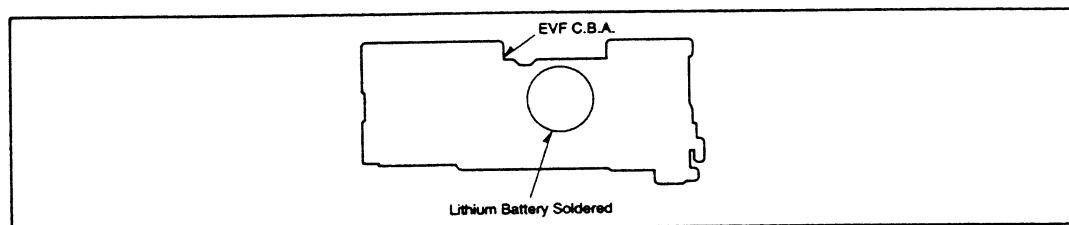


Fig. B1

NOTE :

The lithium battery is a critical component (Type No.: VL2020/1HF Manufactured by Panasonic.)

It must never be subjected to excessive heat or discharge.

It must therefore only be fitted in equipment designed specifically for its use.

Replacement batteries must be of the same type and manufacturer.

They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.

Do not attempt to re-charge the old battery or re-use it for any other purpose.

It should be disposed of in waste products destined for burial rather than incineration.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer.

Discard used batteries according to manufacturer's instructions.

ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.

Udskiftning må kun ske med batteri

af samme fabrikat og type.

Levér det brugte batteri tilbage til leverandøren.

SERVICE INFORMATION

1. SERVICE INFORMATION DISPLAY

General Description

This Movie Camera has SERVICE INFORMATION DISPLAY function which facilitates quick trouble-shooting. You can turn on the Service Information Display, by performing the following procedures. This causes the Service Information to be displayed on the EVF. (There are 4 kinds of SERVICE MODE, as shown below.) In the OSD Line Output Mode, Service Information can also be viewed on the TV.

MODE NAME	FUNCTION	How to turn it ON. (Push following keys simultaneously for at least 2 sec.)		
<u>OSD Line Output MODE</u>	• Checking the EVF information on the TV monitor.	DATE/TIME SET (TOP PANEL)	RESET (TOP PANEL)	DATE TIME (SIDE PANEL)

MODE NAME	FUNCTION	How to turn it ON. (Push following keys simultaneously for at least 2 sec.)		
<u>SERVICE MODE 1</u>	• Remaining Battery A/D Value • Safety Device • Capstan/Cylinder injections	DATE/TIME SHIFT (TOP PANEL)	RESET (TOP PANEL)	DATE TIME (SIDE PANEL)

MODE NAME	FUNCTION	How to turn it ON. (After choosing SERVICE MODE 1, Push [DATE/TIME] key. (SIDE PANEL))		
<u>SERVICE MODE 2</u>	• Reference Voltage A/D Value • Mechanism position • Serial key code.	DATE/ TIME		

MODE NAME	FUNCTION	How to turn it ON. (After choosing SERVICE MODE 2, Push [DATE/TIME] key. (SIDE PANEL))		
<u>SERVICE MODE 3</u>	• ERROR CODE Display	DATE/ TIME		

MODE NAME	FUNCTION	How to turn it ON. (After choosing SERVICE MODE 3, Push [DATE/TIME] key. (SIDE PANEL))		
<u>SERVICE MODE 4</u>	• PG SHIFTER ADJUSTMENT	DATE/ TIME		

ERROR CODE DISPLAY

When undesirable conditions occur, the "ERROR CODE" will automatically be displayed on the EVF. Also the CAMERA LED will flash for a short time, then the power will be turned off. By turning on Service Mode 3, you can check to see what kind of undesirable condition occurred, even after the ERROR CODE has disappeared. (To perform the Service Mode 3, do not disconnect the AC adaptor or battery pack, after undesirable condition occurred.) To clear the ERROR CODE, disconnect the AC Main Lead or the battery has been disconnected.

This movie camera has the built in Rechargeble Lithium Battery.

It maintain the operation of the built-in clock and error code for the Service Mode when the Movie camera turn off.

To clear the error code, make shoot the IC6001 pin 25 to GND for reset the IC6001.

Indication for built in clock return to initial condition make make reset the IC6001.

Note 1: Contents of all Service Mode (Service Mode 1~Service Mode 4) same as previous models.
 So we will issue Technical information for Service Mode.
 Order Number for this document is as follows.
 Order Number for Technical Information : VMD9512M138

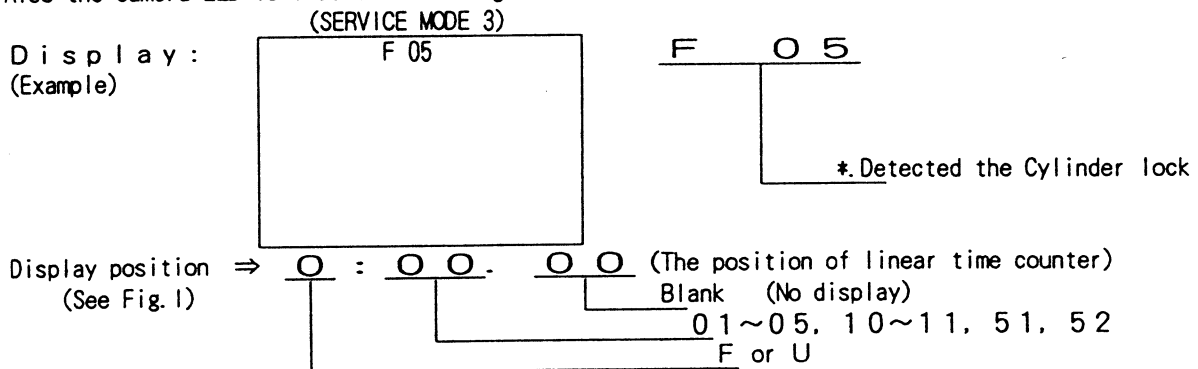
Note 2 : Contents of all Service Mode (Service Mode 1~Service Mode 4) same as previous models.
 We will issue Technical information for Service Mode.
 But Service Mode 3 is Error code Display. It is important for Service.
 So this service manual contain for this information.

SERVICE MODE 3

After undesirable conditions occurred, you can see what kind of error occurred by turning on the Service Mode 3.

When you turn on the service mode 3, the error code is displayed on E.V.F.

Also the Camera LED is flashed according to Error code.



DISPLAY	CONDITION	The Power off timing
F 0 1	T - REEL LOCK	After 1 minute (flashing the LED)
F 0 2	S - REEL LOCK	
F 0 3	UNLOADING LOCK	
F 0 4	LOADING LOCK	
F 0 5	CYLINDER LOCK	
F 5 1	FOCUS MOTOR LOCK	-----
F 5 2	ZOOM MOTOR LOCK	-----
U 1 0	DEW DETECTION	After 18 minutes (flashing the LED)
U 2 0	HEAD CLOGGING	Not turning off

Fig. I Error Code

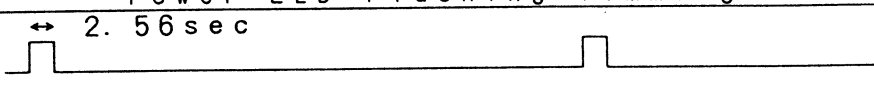
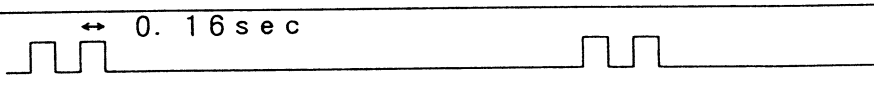
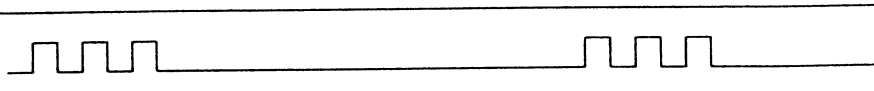
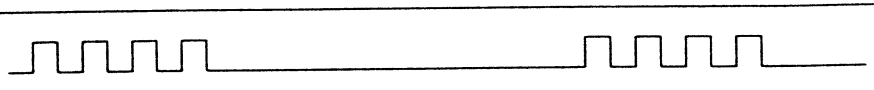
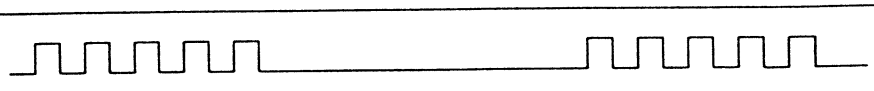
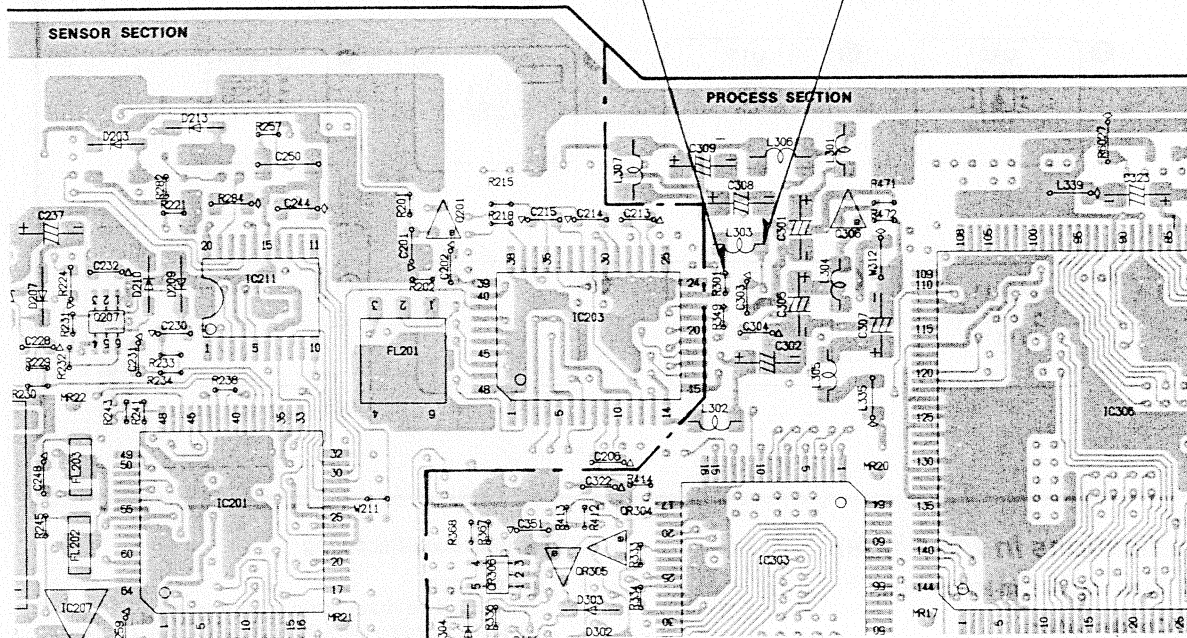
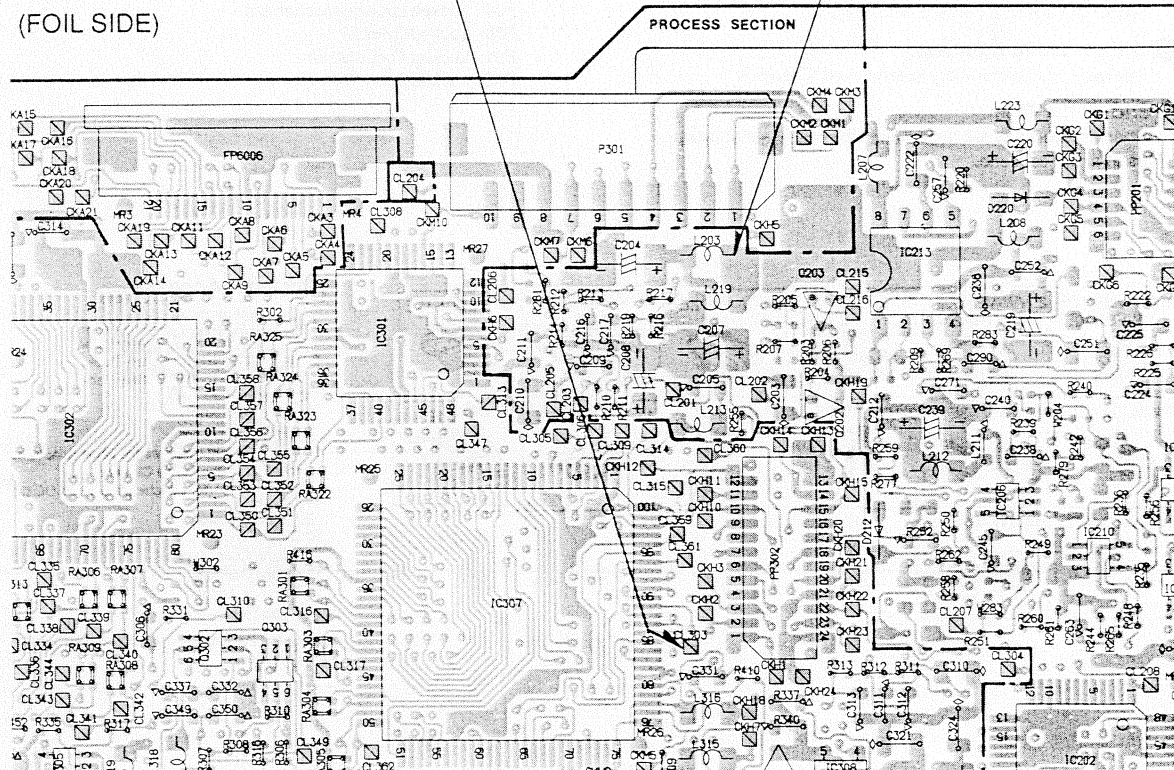
Lock Condition	Power LED Flashing Timming
T - REEL LOCK (F01)	
S - REEL LOCK (F02)	
UNLOADING LOCK (F03)	
LOADING LOCK (F04)	
CYLINDER LOCK (F05)	
OTHERS (U10 & U11)	Power LED is flashed at 1 Hz timing

Fig. J LED Flashing Timming

(COMPONENT SIDE)

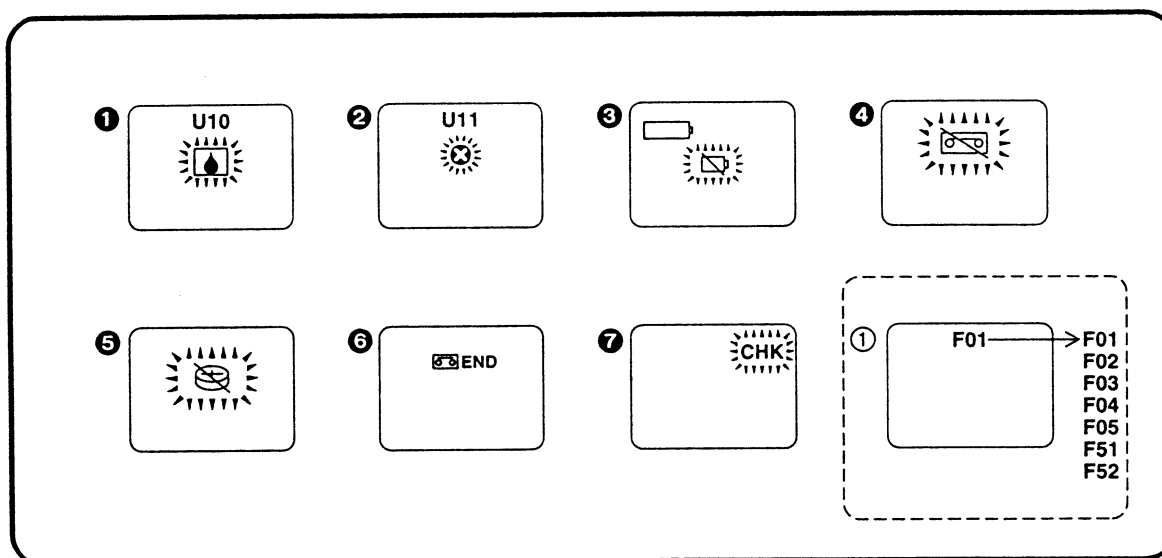


(FOIL SIDE)



SECTION 1

GENERAL DESCRIPTIONS



Indications in the Finder

■ Warning/Alarm Indications

① Condensation

② Video Head Clogging

③ Remaining Battery Power

When the last segment of this indication has disappeared, the Movie Camera automatically switches off. Replace the Battery with a fully charged one.

④ Tape

No cassette is inserted. Or the tab of the inserted cassette is broken out. Insert a cassette with intact tab.

⑤ Built-in Lithium Battery

The built-in Lithium Battery is exhausted. Charge it.

⑥ End of the Tape

When the tape has reached its end, this indication appears. Insert a new cassette.

⑦ Anti-Ground-Recording

① Error Code

(Error codes are information for service personnel.)

• If the [F] Indication with a 2-digit number appears in the Finder, some malfunction has occurred. If the indicated error code is between [F01] and [F05], the Movie Camera will turn itself off automatically one minute after the [CAMERA] Lamp has started to flash. (If the indication is [F51] or [F52], the Movie Camera will not turn off automatically.)

F01: Locked Take Up-Reel

F02: Locked Supply-Reel

F03: Locked Unloading Mechanism

F04: Locked Loading Mechanism

F05: Locked Cylinder

F51: Locked Focus Motor

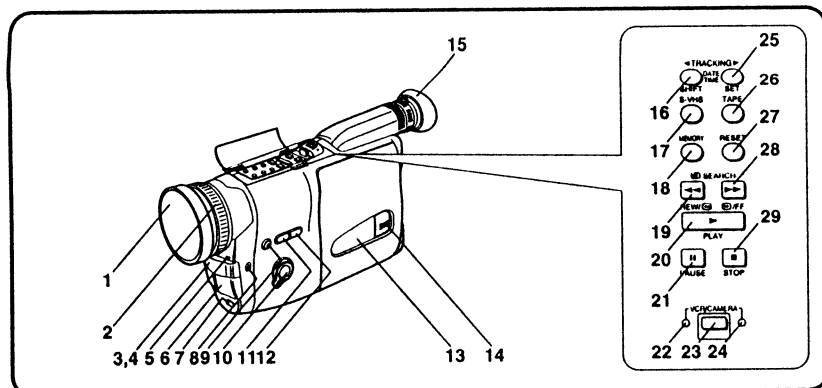
F52: Locked Zoom Motor

1. VW-VBS10E VW-VBH10E 	2. VW-VBS20E VW-VBH20E 	3. VW-KBC2E 	4. VW-ACC2E 	5. VW-K10E 	6. VZ-LDCS13E
7. VW-SK9E 	8. VW-LF43E 	9. VZ-CT55E 	10. VZ-CT75E 	11. VW-EC310E 	12. VW-EC1E
13. VW-TCA7E 	14. VW-VT1E 				

Optional Accessories

1. VW-VBS10E (Ni-Cd Battery Pack)
2. VW-VBS20E (Ni-Cd Battery Pack)
3. Car Battery Charger
4. Car Battery Cord
5. 5-pin Synchro Cord
6. Video DC Light (requires the Shoe Adaptor for mounting on the Movie Camera)
7. Shoe Adaptor (for attaching the Video DC Light)
8. Filter Kit
9. Standard Tripod
10. Deluxe Tripod
11. Editing Controller
12. Editing Controller
13. Cassette Adaptor
14. Video Titler

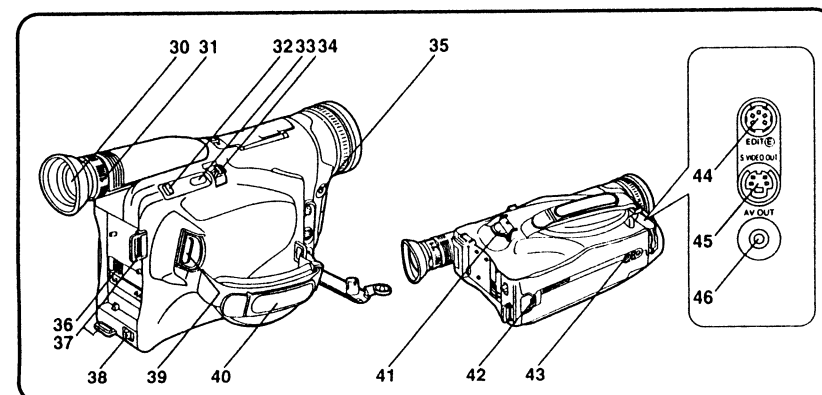
Some accessories are not available in some countries.



Controls and Components

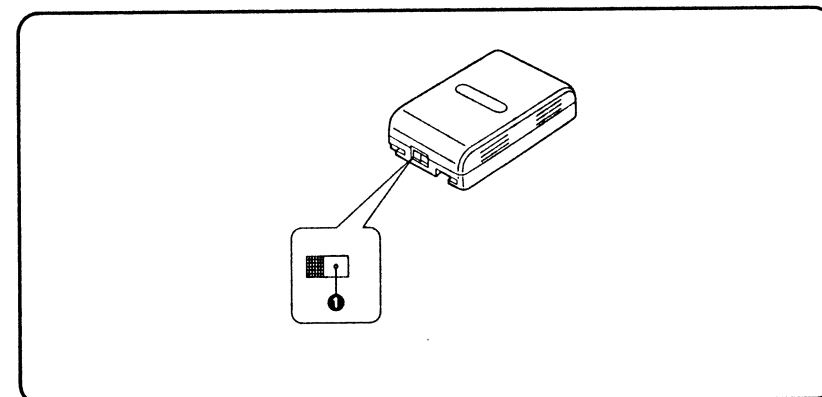
- 1 Lens Cap
- 2 Focus Ring
- 3 White Balance Sensor
- 4 Remote Control Sensor
- 5 Tally Lamp
- 6 Microphone
- 7 [FOCUS] Button
- 8 Image Stabilizer [IS] Selector
- 9 [FADE] Button
- 10 [AE] Selector
- 11 [DATE/TIME] Button
- 12 [W.B] White Balance Button
- 13 Cassette Compartment
- 14 Cassette Compartment [LOCK] Button
- 15 Eyecup

- 16 [DATE/TIME/SHIFT - TRACKING] Button
- 17 [S-VHS] Button
- 18 [MEMORY] Button
- 19 Rewind [◀] Button
- 20 Playback [▶] Button
- 21 Pause [⏸] Button
- 22 [VCR] Lamp
- 23 [VCR/CAMERA] Button
- 24 [CAMERA] Lamp
- 25 [DATE/TIME/SET - TRACKING ▶] Button
- 26 [TAPE] Button
- 27 [RESET] Button
- 28 Fast-forward [▶▶] Button
- 29 Stop [■] Button



- 30 Finder
- 31 Eyepiece Corrector Ring
- 32 Cassette Eject [EJECT ▲] Lever
- 33 [BACKLIGHT] Button
- 34 [W • T] Zoom Lever
- 35 [MIC] Socket
- 36 [DC IN] Socket
- 37 Shoulder Strap Holders
- 38 [BATTERY EJECT ▶] Lever

- 39 Start/Stop Button
- 40 Grip Belt
- 41 [POWER] Switch
- 42 [POWER SAVE] Switch
- 43 Tripod Receptacle
- 44 [EDIT] Socket
- 45 [S-VIDEO OUT] Socket
- 46 [AV OUT] Socket



■ Charging Time and Maximum Time for Continuous Recording in the Manual Recording Mode

Battery Pack No.	Charging Time	Max. Continuous Recording Time
Supplied	60 min.	35 min.
VW-VBS10E	65 min.	40 min.
VW-VBS20E	130 min.	80 min.
VW-VBH10E	80 min.	50 min.
VW-VBH20E	160 min.	100 min.

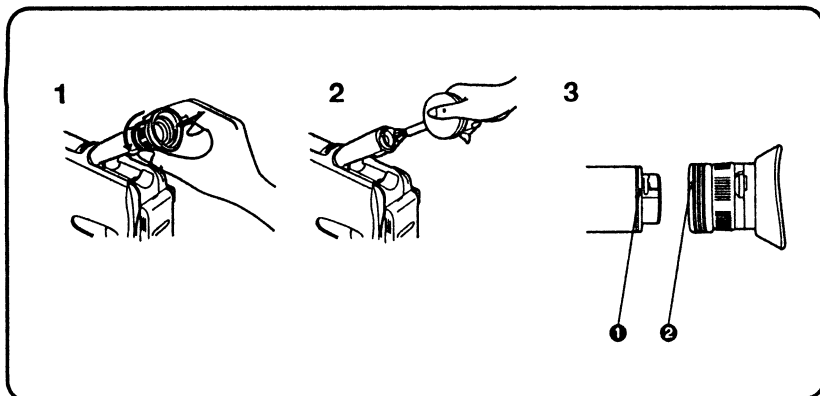
(The times shown in the above chart are approximations.)

- ▼ Max. Continuous Recording Time means the duration of continuous recording performed at an ambient temperature of 20°C and 60% humidity. In actual recording, however, the use of the zoom and other functions increases the power consumption, and higher or lower temperature reduces the Battery's ability to generate electricity. Therefore, the actual recording time per Battery may be drastically shorter (approx. 30%–50%) than listed above.

- ▼ When you go recording outside, it is recommended to take along Batteries sufficient for about three times the intended recording time.

- Using the Charge Confirmation Marker
You can use this marker to easily distinguish between charged and discharged Batteries. For example, slide the knob so that the red dot ● is visible after the charging is completed.

Contains Nickel-Cadmium Battery. Must be recycled or disposed of properly.



After Use

- Take out the cassette.
- Turn in the [POWER] Switch to switch the Movie Camera off.
- Disconnect the Movie Camera from the AC Adaptor. (If you were using the Battery instead of the AC Adaptor to power the Movie Camera, remove the Battery after turning in the [POWER] Switch.)

■ Cleaning the Finder

If dust has entered the Finder...

- 1 Turn the Finder counterclockwise and pull it off.
- 2 Remove dust with a blower brush (not supplied).
- 3 To re-attach the Finder, insert it so that the marks ① and ② are aligned, and then turn the Finder clockwise.

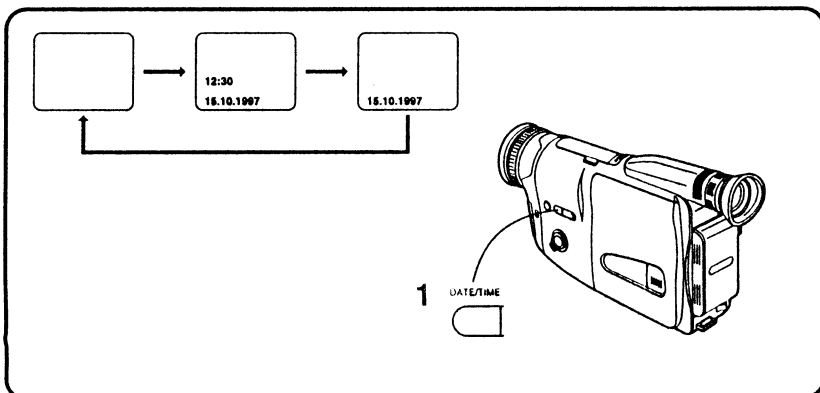
■ Cleaning the Movie Camera Body

Wipe it with a clean, soft cloth.

- Do not wash it with water.
- This might cause water to get inside the Movie Camera and using it with water inside might cause an electric shock or fire. If you suspect that water has entered the Movie Camera, consult qualified service personnel.
- Do not use a cleaning fluid, benzene, thinner or other chemicals for cleaning. They might not only change the colour and damage the surface of the camera body, but they might also increase the risk of fire if there is an open flame or heater nearby.

■ Cleaning the Lens

Clean the lens with Lens Cleaning Tissue or a blower brush.



The figures in the Date/Time Indication change in the following order:
If you make a mistake in setting, keep pressing the [SET] Button to rapidly change the numbers. When you get near the correct figure press repeatedly to select the precise number.

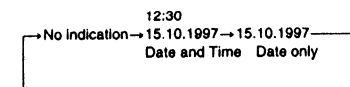
Year: 1990→1991→.....→2089→1990→...
Month: 1→2→.....→12→1→...
Day: 1→2→.....→31→1→...
Hour: 0→1→.....→23→0→...
Minute: 00→01→.....→59→00→...

■ Inserting and Deleting the Date and Time

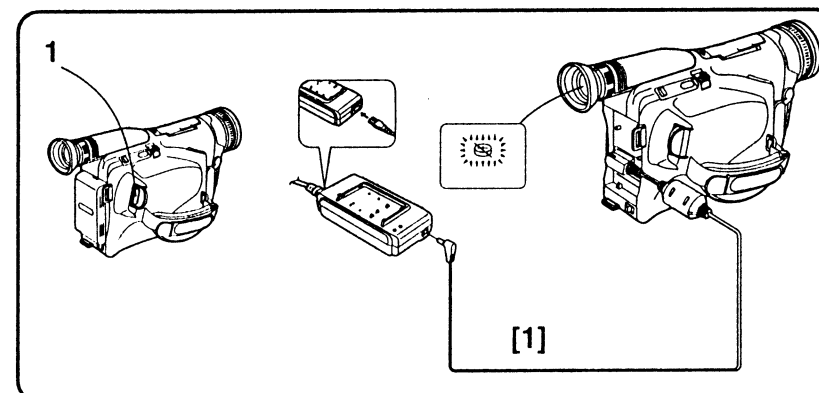
You can insert (and delete) the Date and Time Indications during recording and when the Movie Camera is in the Recording Pause Mode.

1 Press the [DATE/TIME] Button.

- By pressing this button repeatedly, you can change the Date/Time Indication in the Finder in the following order. Select the desired indication.



- When you turn the Movie Camera off while the Date/Time Indication is displayed in the Finder, the Date/Time Indication will not appear in the Finder when you turn the Movie Camera on again.



■ Charging the Built-in Lithium Battery

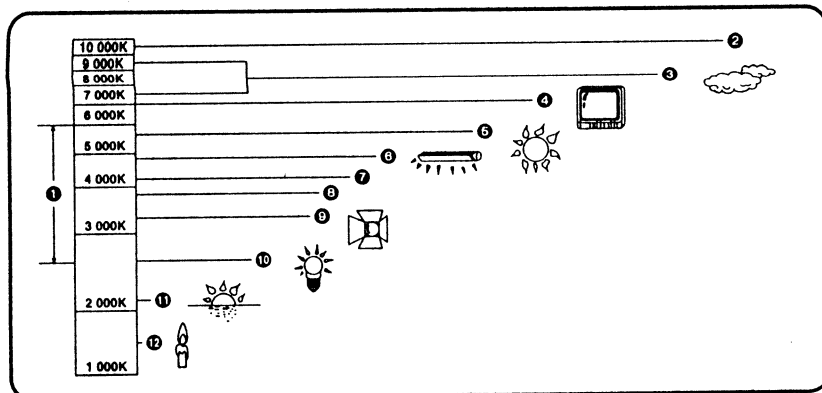
The internal clock works even when the Movie Camera is turned off, and it consumes power from the built-in lithium battery. When the Movie Camera is in operation it automatically charges this battery. However, if the Movie Camera is not used for a very long time, the lithium battery can become exhausted. The exhausted battery can be charged in the following way:

■ How to Determine Whether the Built-in Lithium Battery Is Exhausted

- 1 Turn out the [POWER] Switch to switch the Movie Camera on.
 - If the [S] Indication in the Finder flashes the built-in lithium battery is exhausted.

■ Charging the Built-in Lithium Battery and Other Necessary Operations

- [1] Connect the AC Adaptor to the Movie Camera.
 - The Movie Camera does not need to be turned on.
- [2] Leave the Movie Camera in this condition for approximately 4 hours.
 - After charging for 4 hours, the built-in lithium battery can maintain the operation of the clock for approximately 3 months.
- [3] Set the clock to the current date and time.



Colour Temperature and White Balance

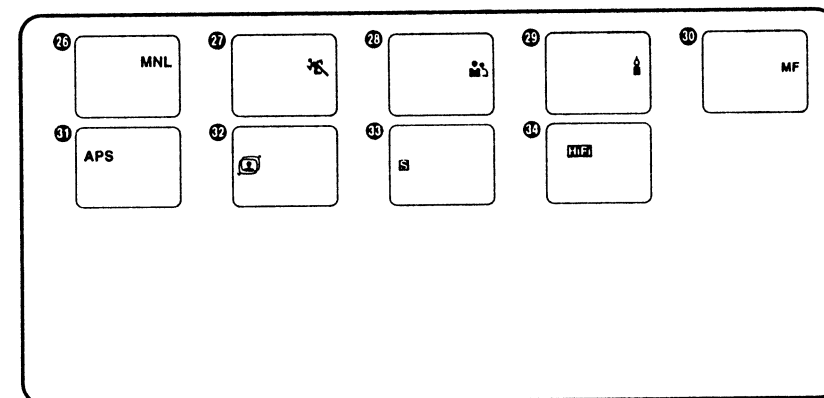
Every light source has its own colour temperature and this is measured in Kelvin (K). The higher the Kelvin value is, the more bluish is the light; the lower the value, the more reddish is the light. The Kelvin value is related to the tint of the light, but not directly to its brightness. The range ① indicated in the illustration above shows the light sources for which this Movie Camera can provide precise white balance adjustment and, therefore, natural colours in the recorded pictures, in the Full Auto Mode. For light sources outside this range, adjust the white balance manually. Also, additional lighting may be necessary.

① Control range of this Movie Camera's Auto White Balance

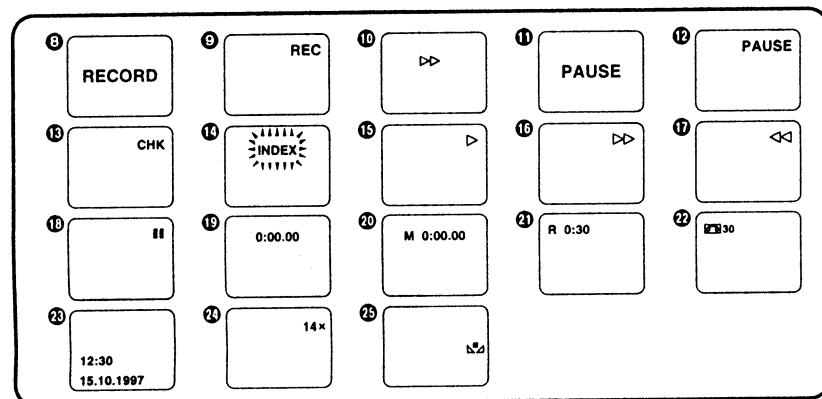
- ② Blue sky
- ③ Cloudy sky (rain)
- ④ TV screen
- ⑤ Sunlight
- ⑥ White fluorescent lamp
- ⑦ 2 hours after sunrise or before sunset
- ⑧ 1 hour after sunrise or before sunset
- ⑨ Halogen light bulb
- ⑩ Incandescent light bulb
- ⑪ Sunrise or sunset
- ⑫ Candlelight

- Recording and Playback Indications
- ③ Recording Mode (large indication)
- ⑤ Recording Mode (small indication)
- ⑩ Tape Run Mode
- ⑪ Recording Pause Mode (large indication)
- ⑫ Recording Pause Mode (small indication)
- ⑬ Recording Review Mode
- ⑭ Recording of Index Mode
- ⑮ Playback/Camera Search Mode
- ⑯ Fast Forward/Cue Mode

- ⑰ Rewind/Review/Camera Search Mode
- ⑱ Still Playback Mode
- ⑲ Tape Counter
- ⑳ Tape Counter with activated Memory Stop Function
- ㉑ Remaining Tape Time
- ㉒ Tape Length
- ㉓ Date and Time
- ㉔ Zoom Magnification
- ㉕ Manual White Balance Mode



- ㉖ Manual Recording Mode
- ㉗ Sports Mode
- ㉘ Portrait Mode
- ㉙ Low Light Mode
- ㉚ Manual Focus Mode
- ㉛ Power Save Mode
- ㉜ Super Image Stabilizer Mode
- ㉝ Super-VHS Format
- ㉞ HiFi Mode

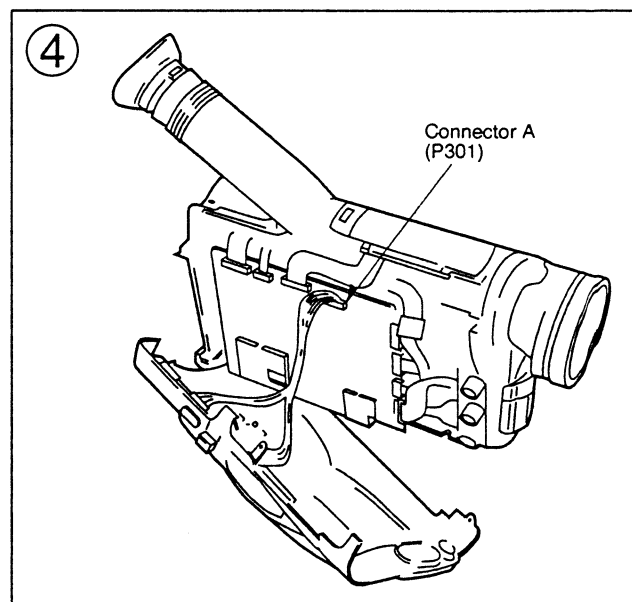
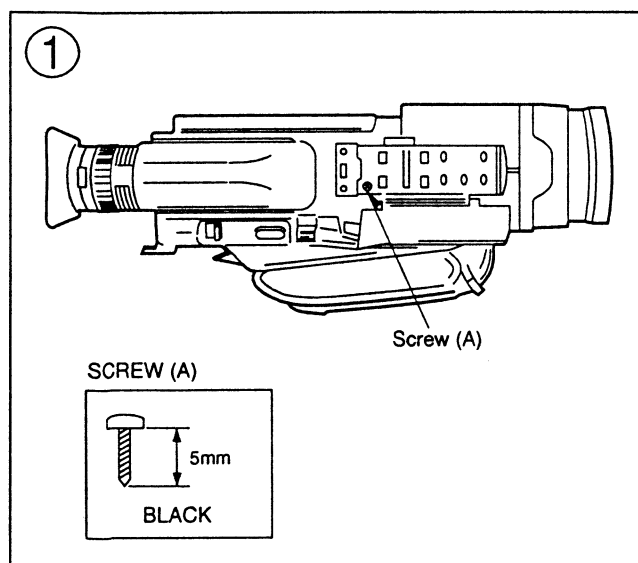
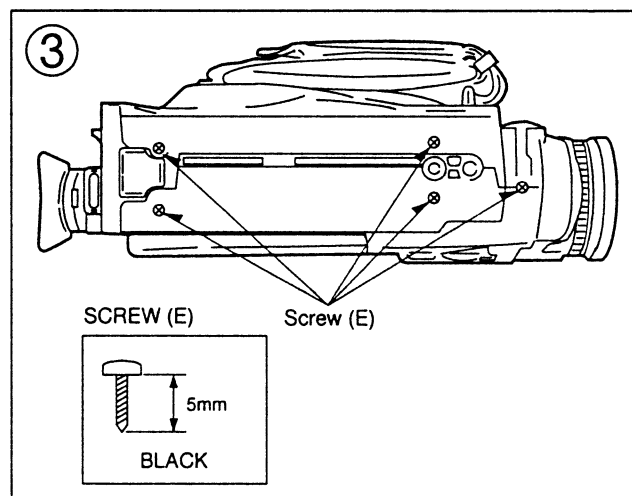
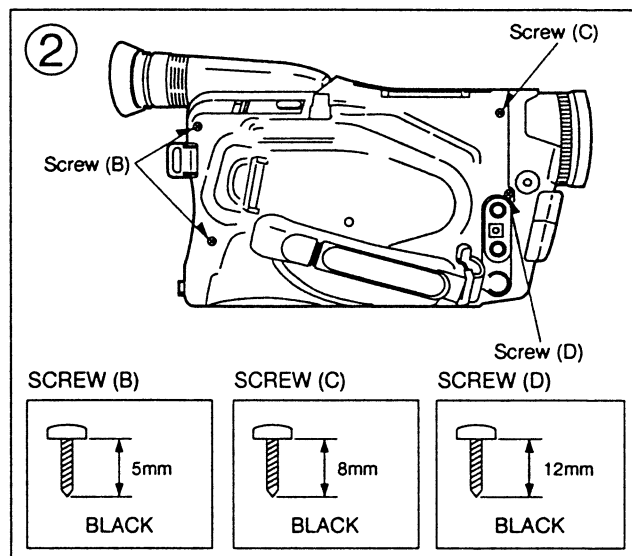


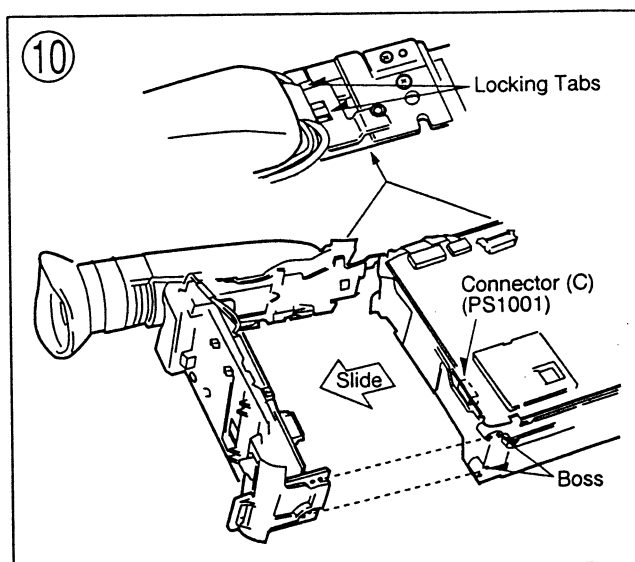
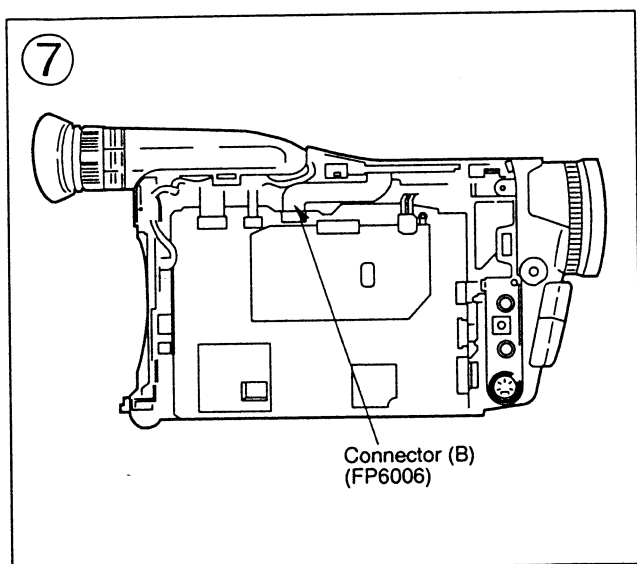
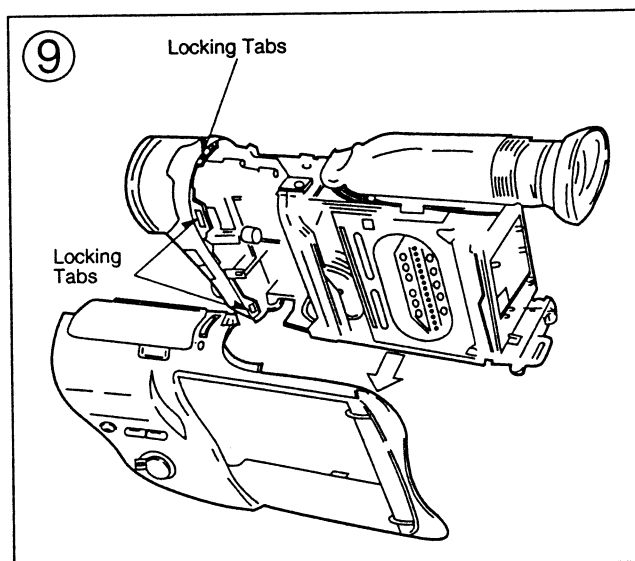
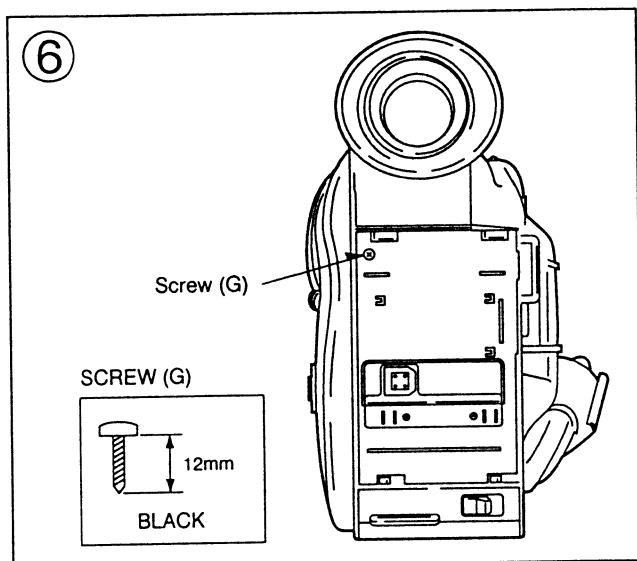
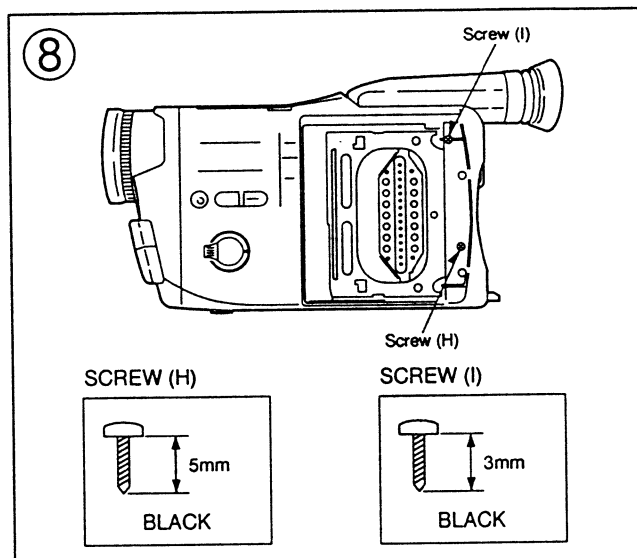
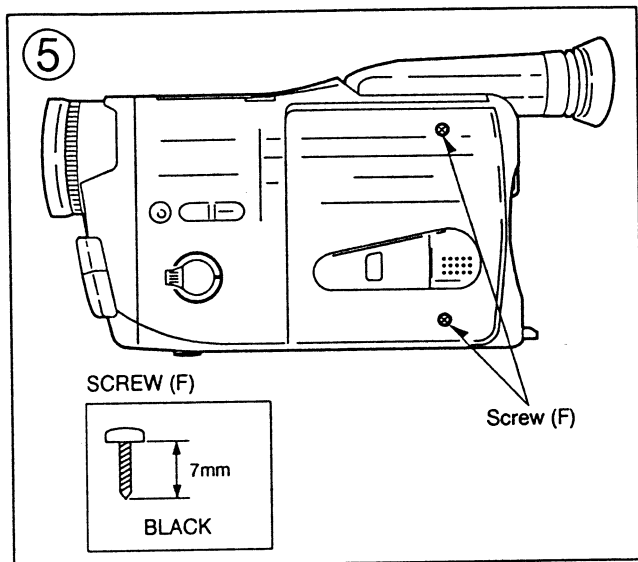
SECTION 2 ADJUSTMENT PROCEDURES

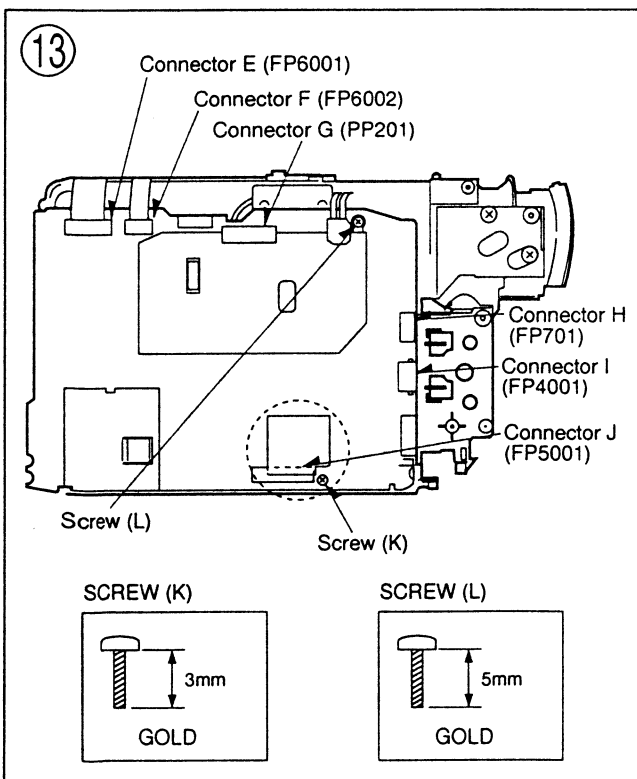
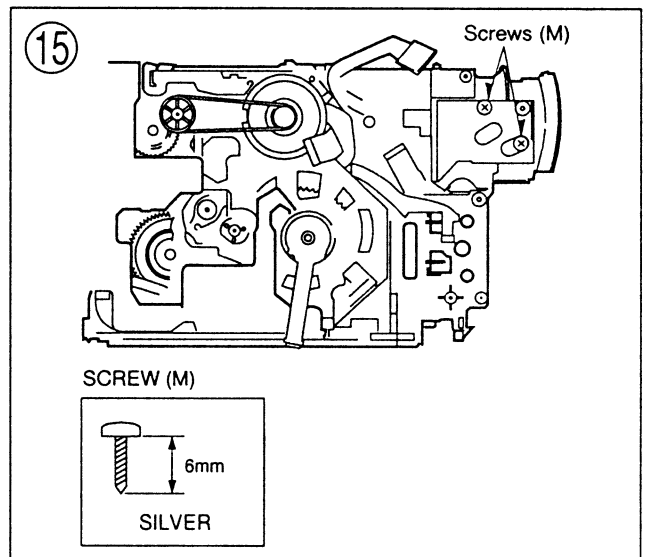
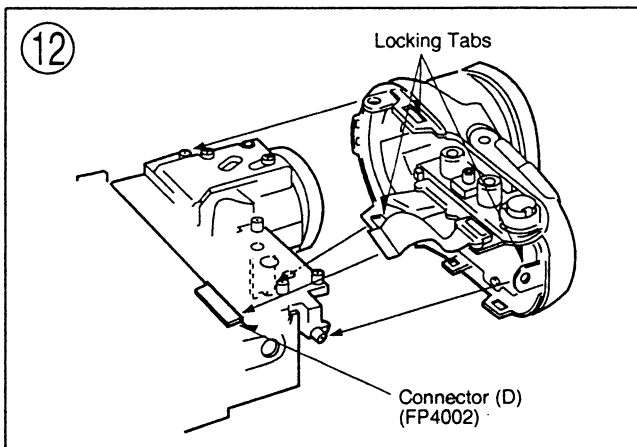
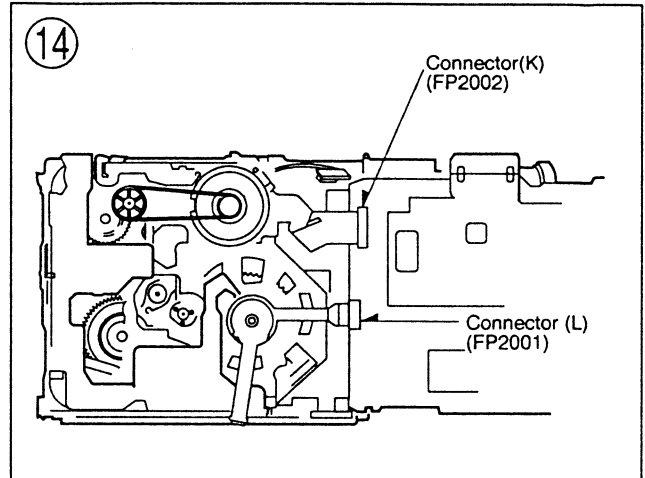
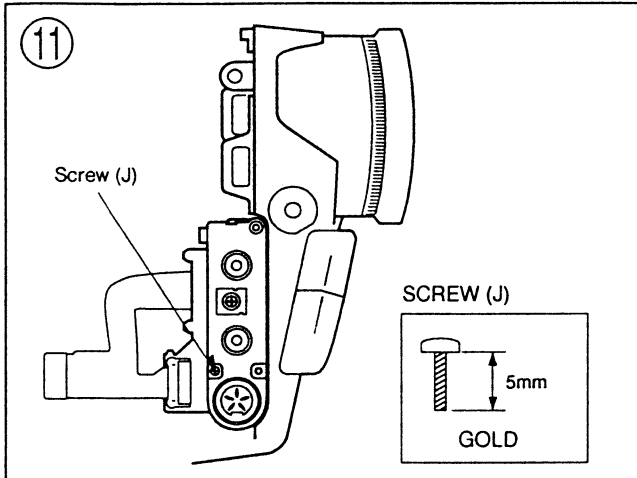
2-1. DISASSEMBLY PROCEDURES

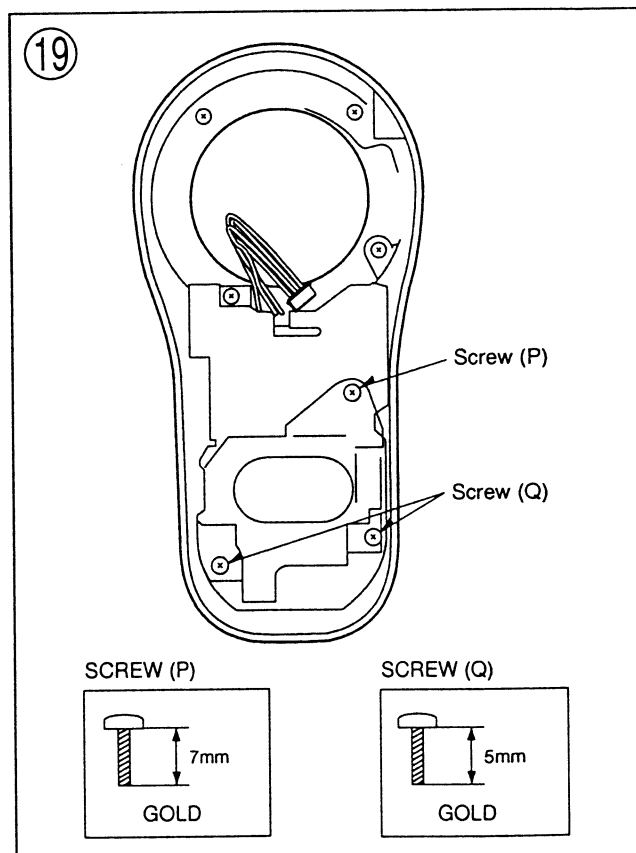
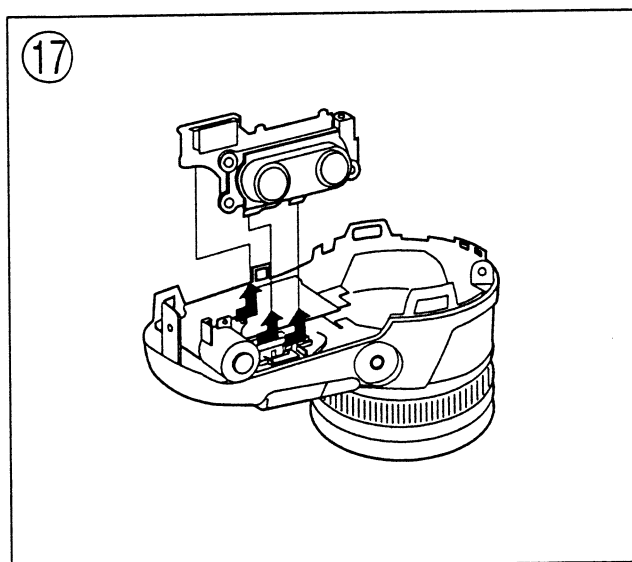
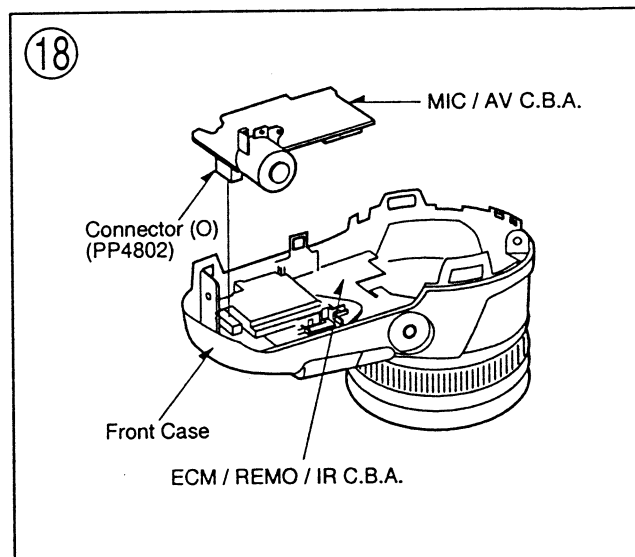
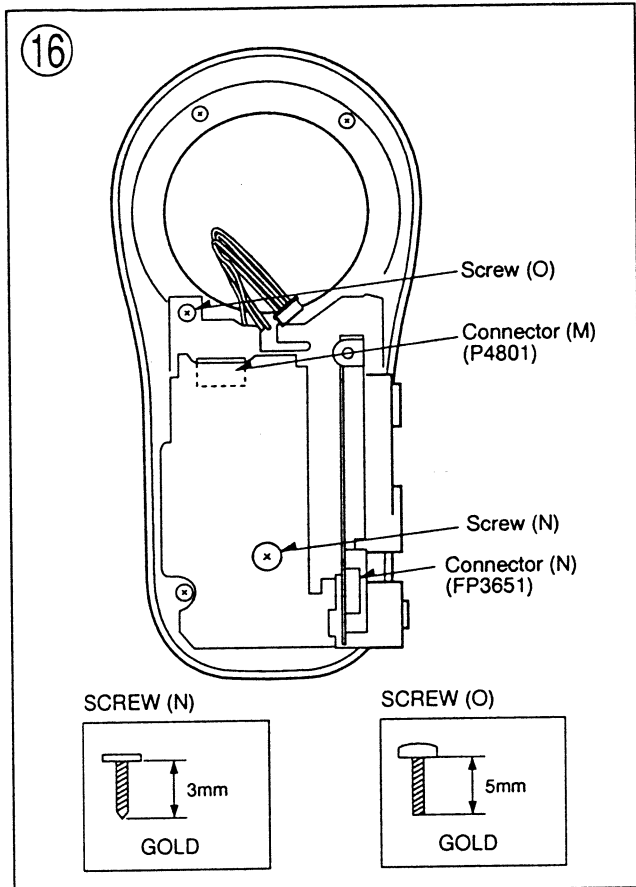
Flow-Chart for Disassembly procedure.

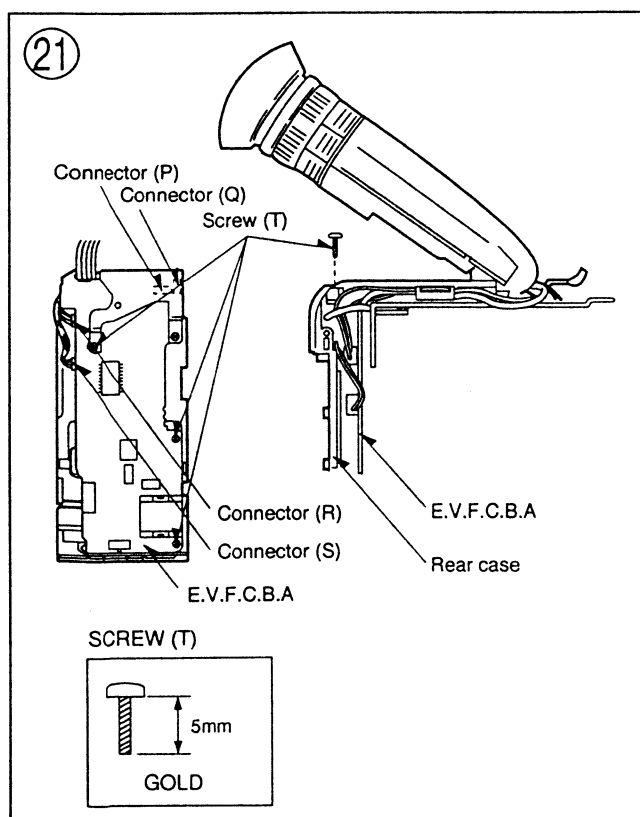
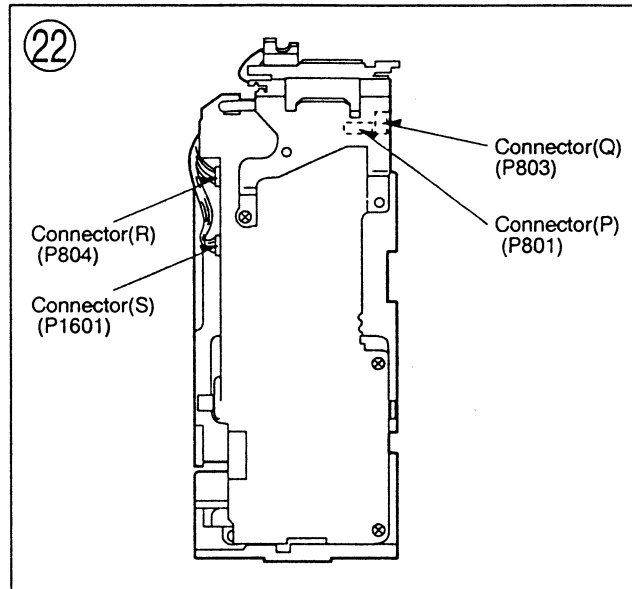
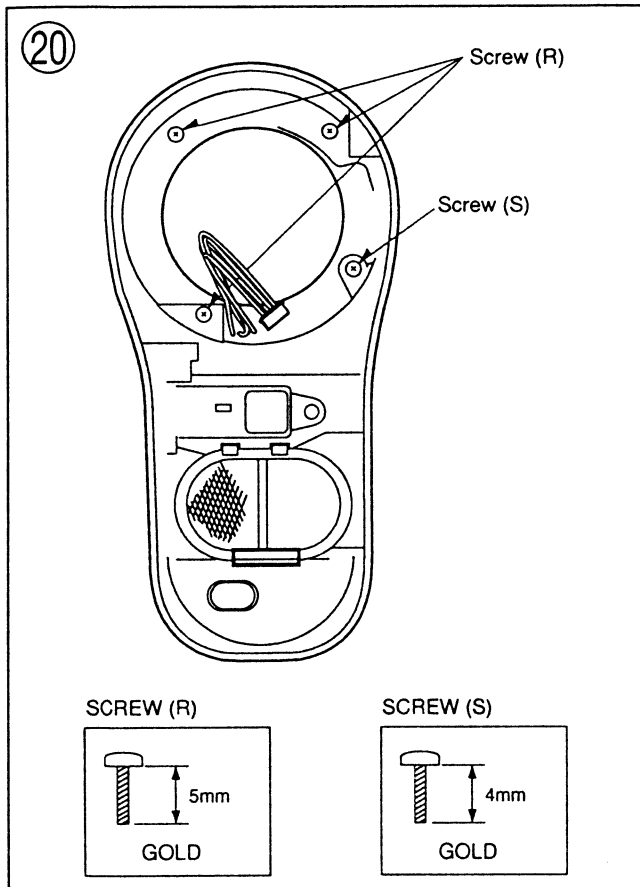
NBR	ITEM/PART	Fig.	Removal (SCREW)
【1】	Side Case (L).	①	1-SCREW (A)
		②	4-SCREW (B/C/D)
		③	5-SCREW (E)
		④	Slightly open the side case (L) Disconnect (Connector A)
【2】	Cassette Cover	⑤	2-SCREW (F)
【3】	Side Case (R)	⑥	1-SCREW (G)
		⑦	Disconnect (Connector B)
		⑧	2-SCREW (H/I)
		⑨	Unlock—3 Locking Tabs Remove the side case (R)
【4】	EVF-Unit	⑩	Unlock—2 Locking Tabs Disconnect (Connector C)
【5】	Front Case	⑪	1-SCREW (J)
		⑫	Unlock—3 Locking Tabs Disconnect (Connector D)
【6】	Main C.B.A.	⑬	2-SCREW (K/L) Disconnect (Connector E/F/G/H Connector I/J)
		⑭	Disconnect (Connector K/L)
【7】	Lens-Unit	⑮	2-SCREW (M)
【8】	S/EDIT C.B.A. & Mic/AV C.B.A.	⑯	2-SCREW (N/O)
		⑰	Disconnect (Connector M/N)
		⑱	Remove the S/EDIT C.B.A. Remove the Mic/AV C.B.A.
【9】	ECM/REMO/IR C.B.A.	⑲	3-SCREW (P/Q) Remove the ECM/REMO/IR C.B.A.
【10】	MF LING Unit	⑳	4-SCREW (R/S)
【11】	E.V.F. C.B.A.	㉑	4-SCREW (T)
		㉒	Disconnect (Connector P/Q/R/S)











2-2. DISASSEMBLY PROCEDURES OF LENS UNIT

The following flowchart describes order or steps

for removing the Lens Units and certain printed circuit boards in order to make access to the item needing service.

To reassemble the unit follow the steps in reverse order.

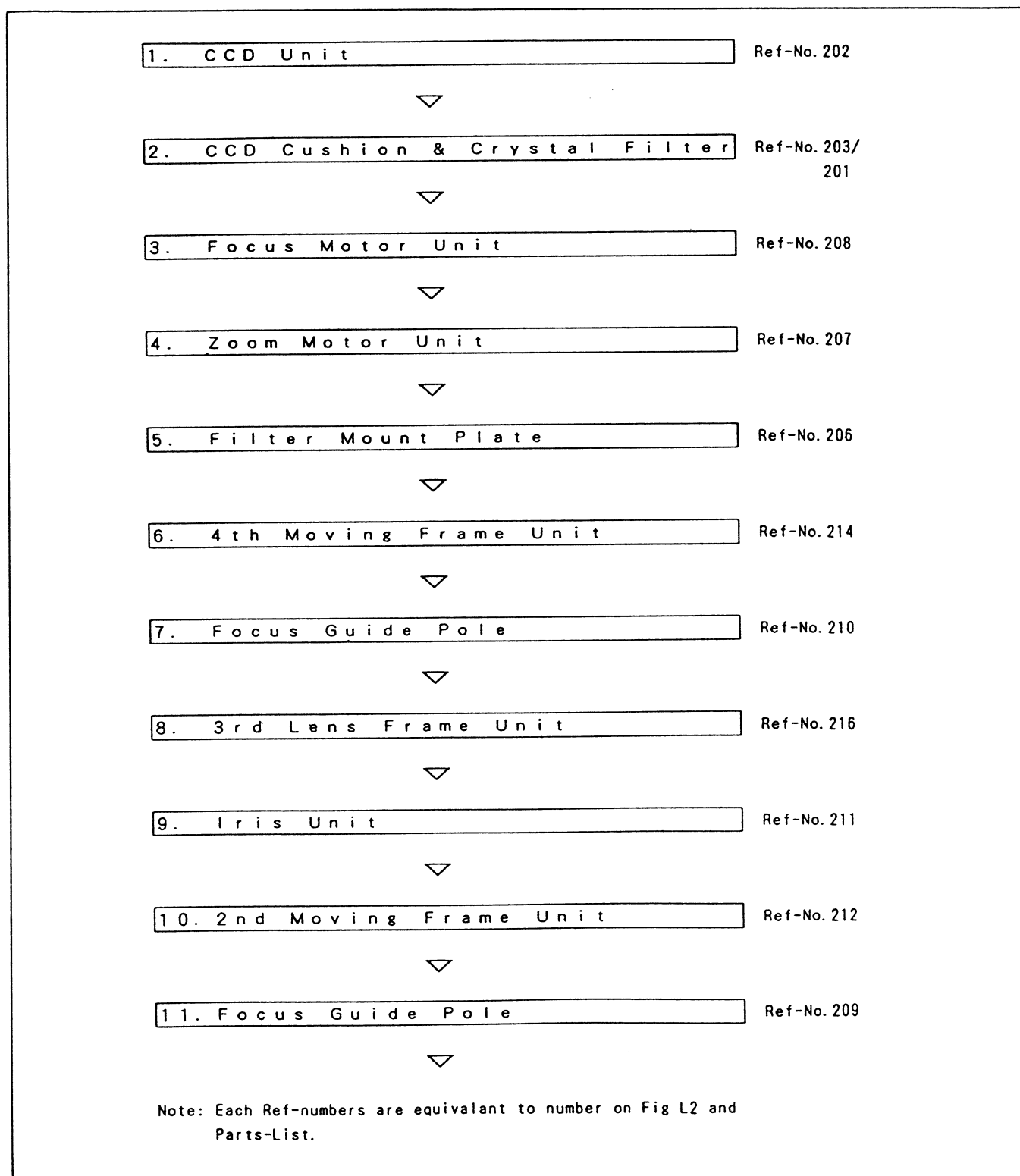


Fig. L1



2-3. ELECTRICAL ADJUSTMENT PROCEDURES

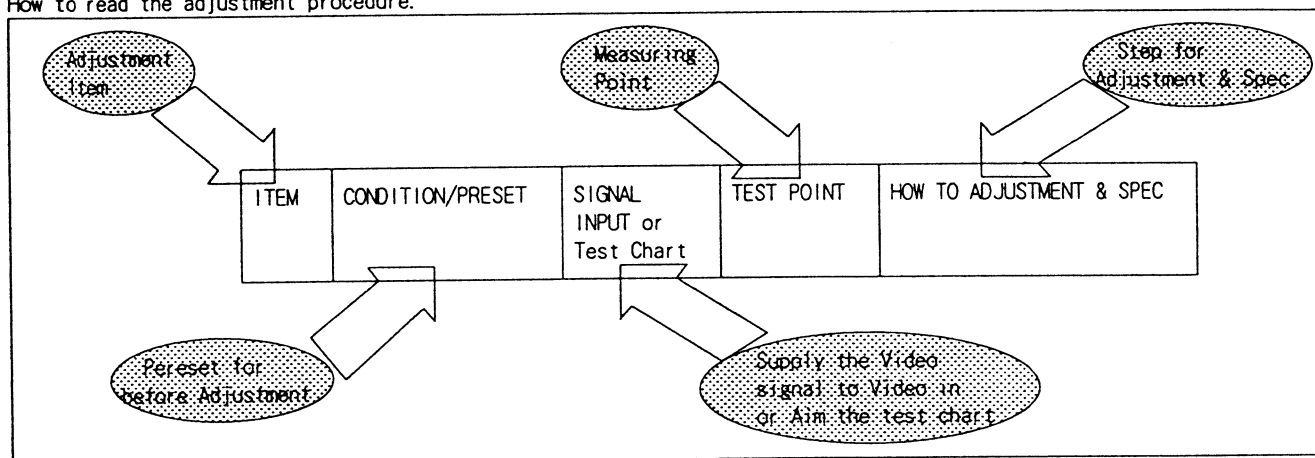
The following equipments are required for adjustment of VTR & E.V.F section of VHS-Movie.

Item & Spec/Range	Item & Spec/Range
1 Extension Cable : VFK0668 (24pin)	6 Probe for Oscilloscope
2 Video sweep generator	Voltage Range : 0.01~50V
Frequency Range : 0.0~50MHz	(10:1 or 1:1 Probe)
3 Colour Monitor TV	7 VHS-C Movie Alignment Tape (VFM8018HQPP)
4 Plastic Tip Driver	8 S-VHS-C Blank Tape
5 Dual Trace Oscilloscope	9 Colour Bar Chart/Gray Scale Chart/Black & White Chart
Voltage Range : 0.01~50V	
Frequency Range : 0.0~50MHz	

PREPARATION:

- Remove the Casing panels. (Side case, Rear Case)
- Connect the Viewfinder to unit with Extension Cable VFK0668 (24pin). ⇨ Please refer to Fig.E1.
- The camera unit must be completely aligned before adjustment for VTR unit/Viewfinder unit.

How to read the adjustment procedure.



Preparation

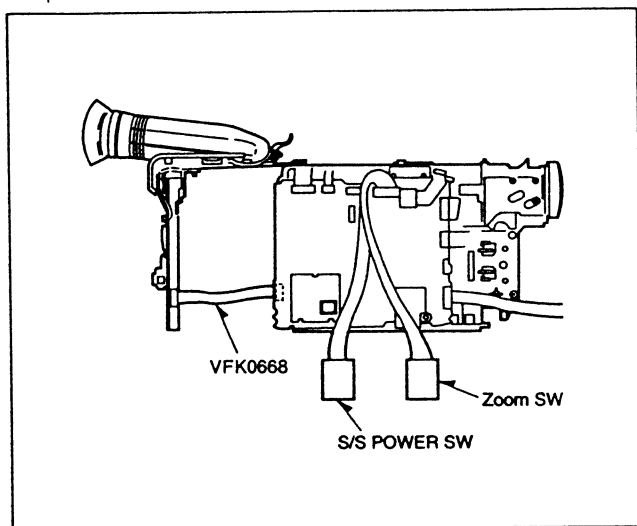


Fig.E1

Note: Triggering the Oscilloscope

To trigger the Oscilloscope, following test point is used.

H. Rate: Video Output

V. Rate: PP6001-10 (Head switching signal)

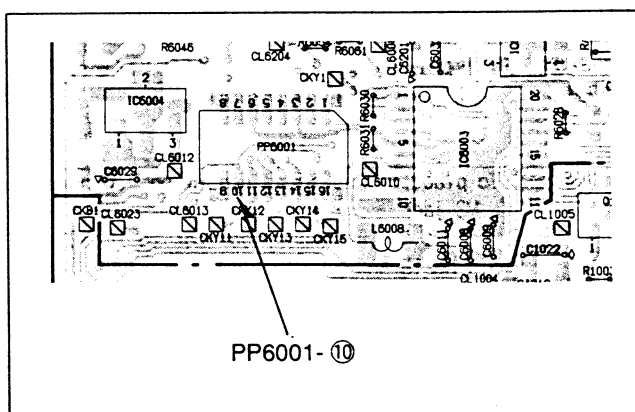


Fig.E2

Note : Following Adjustment required EVR fixture.

So, adjustment procedure described on Service Manual VMD9606M136.

- Sub Emphasis input level adjustment
- White clip/Dark clip adjustment
- Deviation adjustment (VHS/S-VHS)
- Carrier adjustment (VHS/S-VHS FM Modulation)
- Croma/Luminance recording current
- FM Audio recording current
- PG Shifter adjustment

2-3-1. ELECTRICAL ADJUSTMENT FOR VTR SECTION.

ITEM	CONDITION/PRESET	SIGNAL INPUT or Test Chart	TEST POINT	HOW TO ADJUSTMENT & SPEC
1. VCO	1. Connect the Frequency Counter to PP3001-③ 2. Supply the 2.5(V) DC voltage to TL5533 and TL5534. 3. Connect the 2.2(K Ω) resistor between TL5532 and GND. 4. Playback the recorded signal.	—————	PP3001-③	1. Turn the FL5501 so that the frequency at PP3001-③ become <u>5.110MHz$\pm$25KHz</u> .
2. S-VHS PLAYBACK Y-LEVEL	1. Connect the jumper wire between PP6001-⑪ and REG. 5V. 2. Supply Colour-Ber signal to PP6001-⑫. 3. Set the unit S-VHS mode. 4. Turn the unit Recording Mode with S-VHS blank-tape. 5. Terminate the Video out by 75 Ω . 6. Connect the Oscilloscope at Video out. 7. Playback the recorded signal.	Colour-Ber signal	Video-out	1. Turn VR3003 so that the signal level at Video out become <u>1.0$\pm$0.05Vp-p</u> (75 Ω Terminated) (Please refer to Fig.E3.)
3. VHS PLAYBACK Y-LEVEL	1. Connect the jumper wire between PP6001-⑪ and REG. 5V. 2. Supply Colour-Ber signal to PP6001-⑫. 3. Set the unit VHS mode. 4. Turn the unit Recording Mode with VHS blank-tape. 5. Terminate the Video out by 75 Ω . 6. Connect the Oscilloscope at Video out. 7. Playback the recorded signal.	Colour-Ber signal	Video out	1. Turn VR3002 so that the signal level at Video out become <u>1.0$\pm$0.05Vp-p</u> (75 Ω Terminated) (Please refer to Fig.E4.)
4. COS EQ	1. Connect the jumper wire between PP6001-⑪ and REG. 5V. 2. Set the sweep generator as shown in Fig.E5. 3. Supply Sweep signal to PP6001-⑫ and the record the signal for few minute. 4. Playback the recorded signal. 5. Connect the Video out to Oscilloscope.	Sweep signal	Video out	1. Turn VR3007 so that signal level at the <u>4MHz</u> is within spec as shown in Fig.E6.

2-3-2. ELECTRICAL ADJUSTMENT FOR AUDIO SECTION.

ITEM	CONDITION/PRESET	SIGNAL INPUT or Test Chart	TEST POINT	HOW TO ADJUSTMENT & SPEC
1. FM CARRIER	1. To place the no sound condition, connect a M3 jack. 2. Connect the Frequency counter to IC4501 pin No. 18 and pin No. 31.	—————	L-CH = IC4501 pin No. 18 R-CH = IC4501 pin No. 31	L-CH 1.4M $\pm$ 10KHz (Adjusted by VR4501) R-CH 1.8M $\pm$ 10KHz (Adjusted by VR4509)

Fig. FOR ELECTRICAL ADJUSTMENT FOR VTR SECTION.

Fig. E3 S-VHS PLAYBACK LEVEL

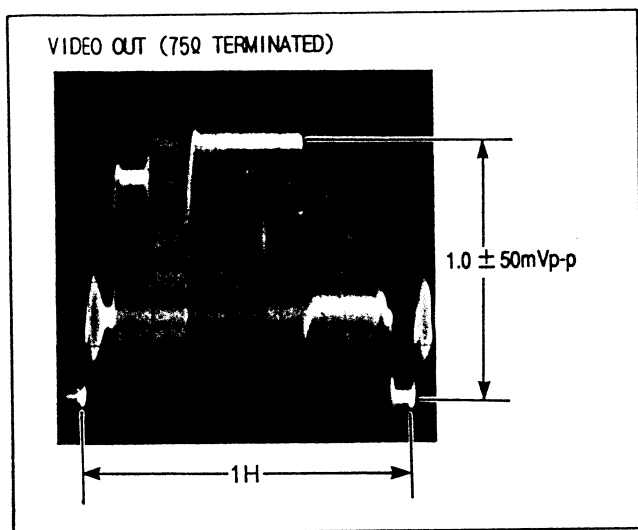


Fig. E4 VHS PLAYBACK LEVEL

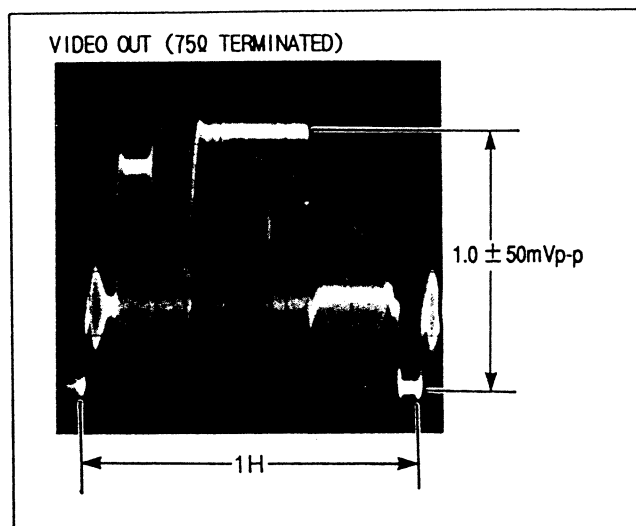


Fig. E5 SET UP FOR SWEEP GENERATOR

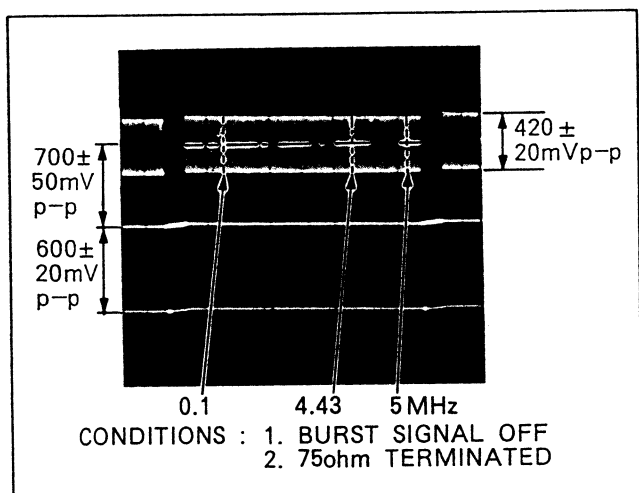
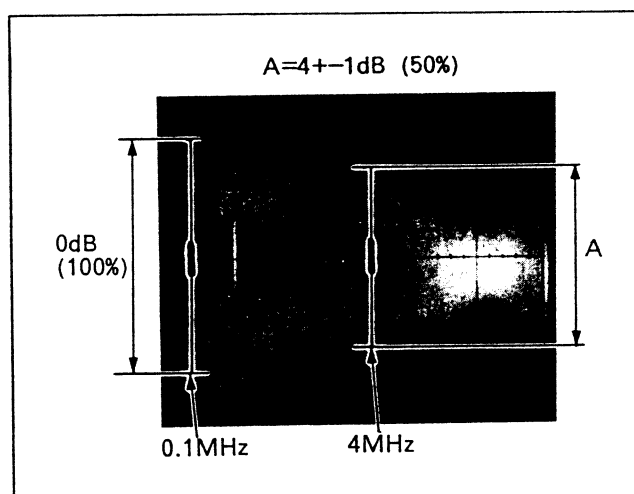
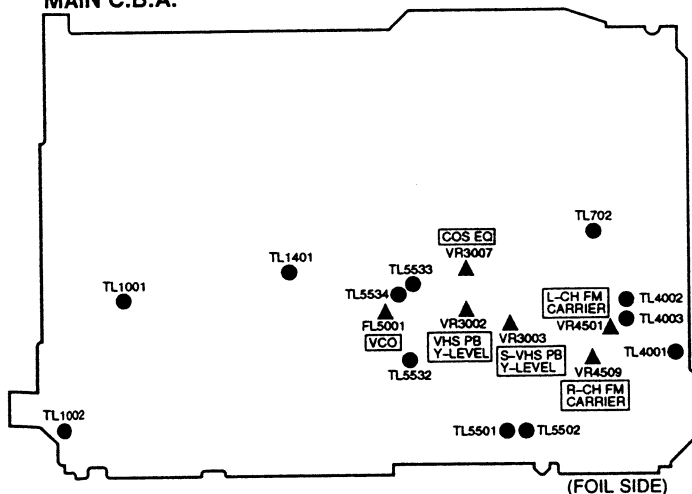


Fig. E6 COS EQ ADJUSTMENT



LOCATION OF TEST POINTS & CONTROLS

MAIN C.B.A.



2-3-3. ELECTRICAL ADJUSTMENT FOR EVF SECTION.

ITEM	CONDITION/PRESET	SIGNAL INPUT or Test Chart	TEST POINT	HOW TO ADJUSTMENT & SPEC
1. CENTERING	1. Aim the camera at registration chart.	Registration chart.	E. V. F. on Screen	Adjust the deflection-yoke centering magnets turning so that picture on E.V.F. is centered. (Please refer to Fig. E7.)
2. FOCUS	1. Aim the camera at Ball chart.	Ball chart	E. V. F. on Screen	Adjust the VR803 for best resolution in Viewfinder. NOTE: After performed this adjustment, confirm "A" part of VR803. "A" part is outside of 100 degree. (Please refer to Fig. E8.)
3. VERTICAL SIZE	1. Aim the camera at Gray-Scale chart	Gray-Scale chart	E. V. F. & TV on Screen	Adjust the VR801 for best vertical size. (Picture does not roll as shown in Fig. E9.)
4. BRIGHTNESS	1. Aim the camera at Gray-Scale chart	Gray-Scale chart	E. V. F. & TV on Screen	Adjust the VR804 so that brightness in viewfinder is same as monitor TV

Fig. FOR ELECTRICAL ADJUSTMENT FOR EVF SECTION.

Fig. E7 CENTERING ADJ.

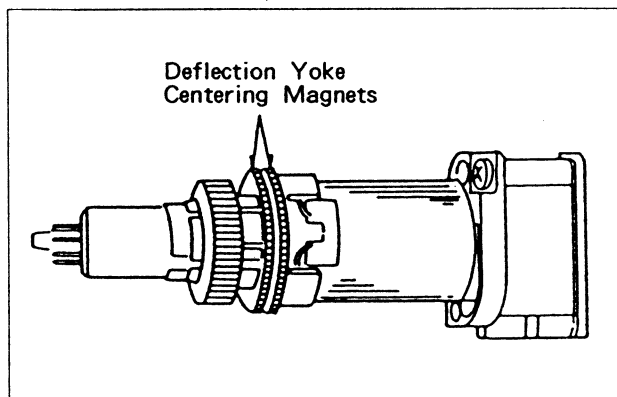


Fig. E8 FOCUS ADJ.

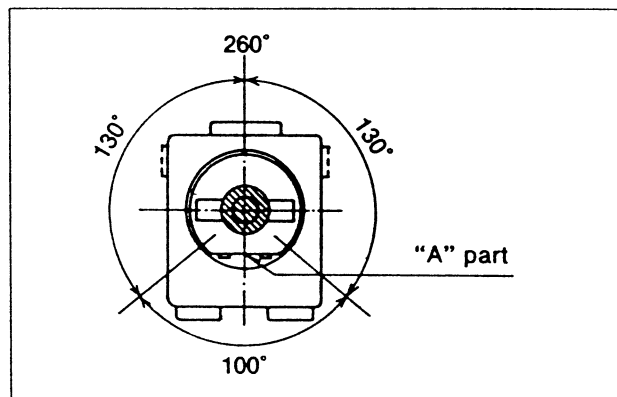
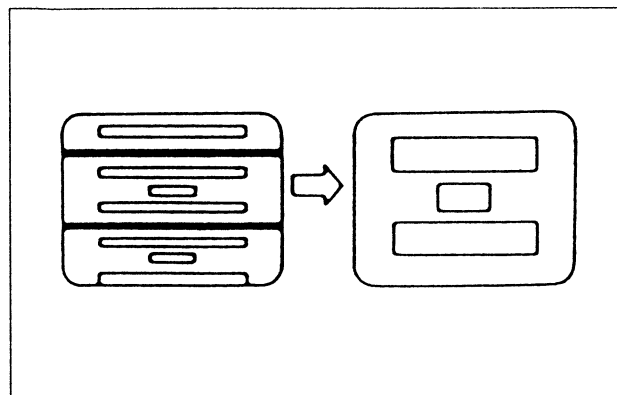
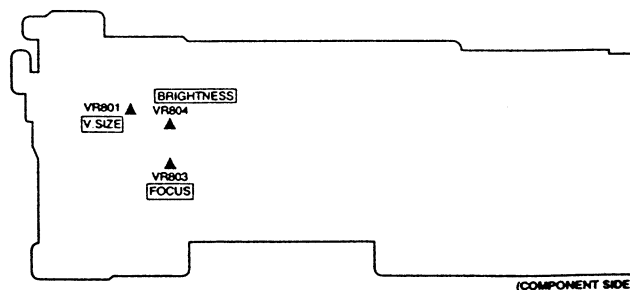


Fig. E9 VERTICAL ADJ.



LOCATION OF CONTROLS

EVF C.B.A.



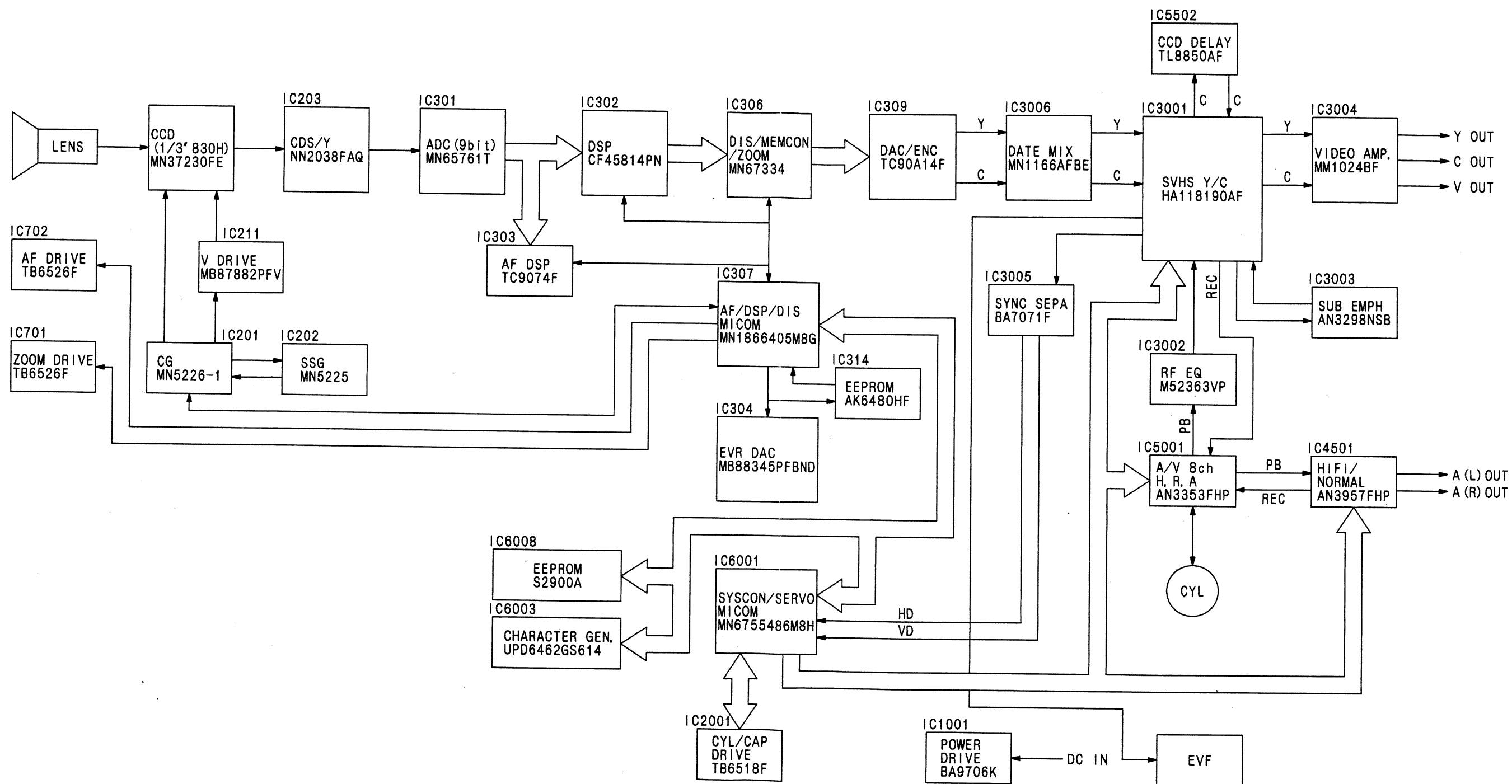
SECTION 3 BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS

3-1. ABBREVIATIONS

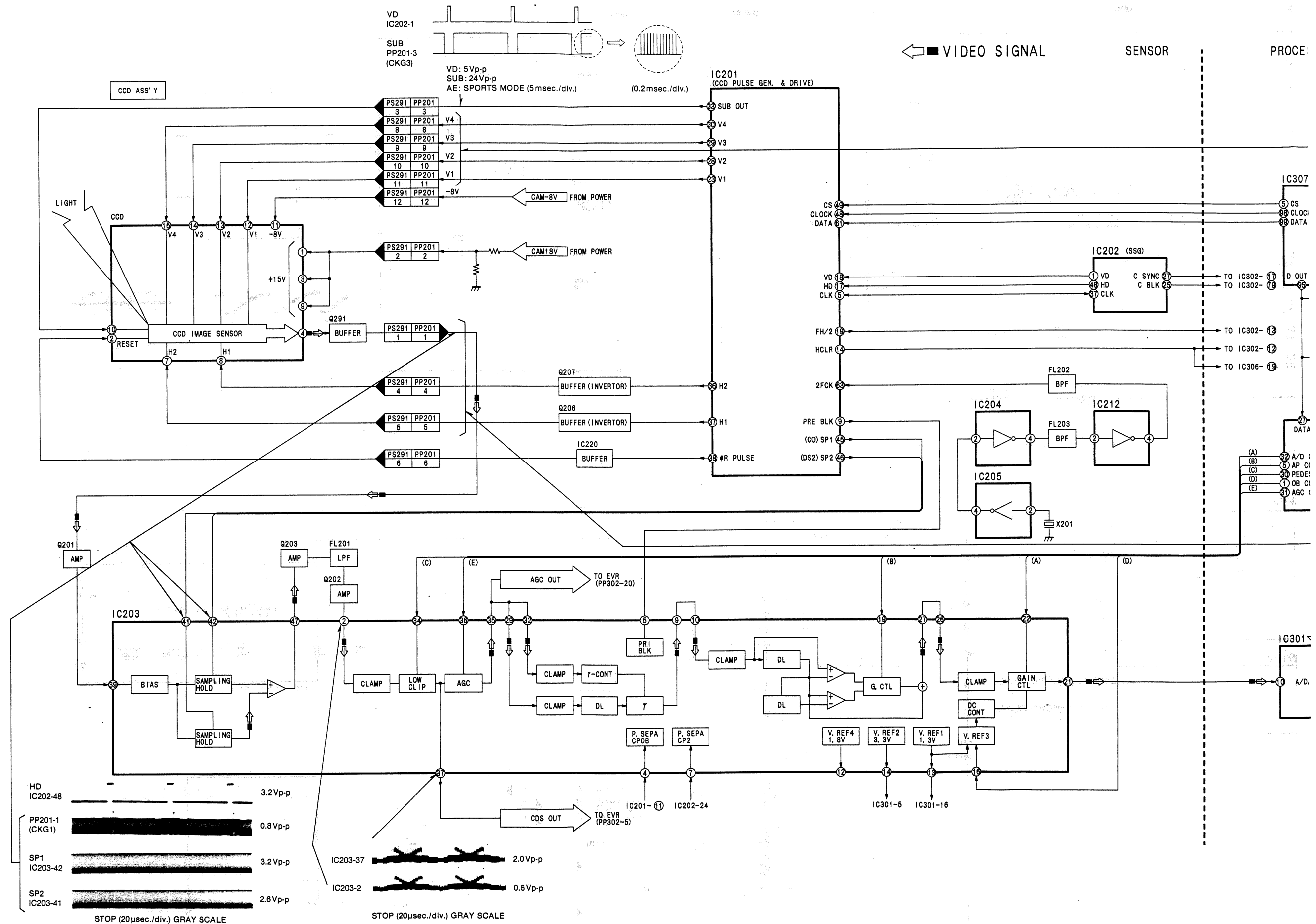
INITIAL/LOGO	ABBREVIATIONS	INITIAL/LOGO	ABBREVIATIONS
3R3V	3. 3V	D	D0~D8(D9) DCLR DCLK DISCS DL FM MUTE DRK DS 1~2 DSP DZ DZ/OZ
A	A. TR ABSF ADCLK ADCNT ADCS ADREC ADUB AE AECNT AEIRQ AFADE AGCNT AGS ALCNT ALCMAIN AMUT AORP APS ARTV ATR AWTB AWTR		VIDEOOUT(DIGITAL 8 or 9 BIT) DIGITAL CLEAR DIGITAL CLOCK DIS CHIP SELECT DELAY LINE FM AUDIO MUTE DARK(LPF SWITCH FOR AUTO FOCUS) DOUBLE SAMPLING PULSE DIGITAL SIGNAL PROCESS DIGITAL ZOOM DIGITAL ZOOM/OPTICAL ZOOM
	AUTO TRACKING FOCUS ENCODER INPUT A/D CLOCK A/D CONTROL A/D CHIP SELECT AUDIO DELAIED REC AUDIO DUBBING AUTO EXPOSE AUTO EXPOSECONTROL AUTO EXPOSEINTERRUPT REQUEST AUDIO FADE AGC CONTROL ANTI GROUND SHOOTING ALC CONTROL ALC DRIVE AUDIO MUTE AUDIO OVER LAP PULSE AUTO POWER SAVE ARTIFICIAL VERTICAL SYNC AUTO TRACKING AUTO WHITE BALANCE B-Y AUTO WHITE BALANCE R-Y	E	(E ² PROM) E2CS ECM EEPROM ENV DET EQ EZOOM
		F	FAR FCK FENC FH2B FM CS FMO~7(8) FMO REC FMOEM FNO
B	B-Y KB BACK BATT BFA BFO/BFI BL BLDIN BLDOUT BLK BM BUF		FAR(FOCUS) CLOCK FOCUS ENCODER FH/2(15. 625KHz÷2=7. 8125KHz) CHIP SELECTFOR FM-AUDIO FIELD MEMORY INPUT 8BIT(or 9BIT) FM AUDIO DELAYED REC FIELD MEMORY ENABLE F VALUE
	B-Y CARRIER BALANCE BACK-UP BATTERY BURST FLUG FOR ENCODER BURST FLUG INPUT/OUTPUT BACK LIGHT BACK LIGHT DRIVE INPUT BACK LIGHT DRIVE OUTPUT BLANKING PULSE BALANCED MODULATOR BUFFER	G	GCNT
		H	H1~H2 H. A SW HBRST HCLR HEX HLT
C	CAP R/S/F CAPVM CCW CDS CFEM CFM 1~4 CGC CH1 CHR MIX CK or CLK CLK2 CNO COO~7 CP CPOB CS CSEL1~2 CTSW CW CYLVM		H. CCD DRIVE PULSE HEAD AMP SW HIGH BRIGHT SET HIGH CLEAR HEXADECIMAL HIGHT BRIGHT SIGNAL
	CAPSTAN REVEASE/STOP/FORWARD CAPSTAN MOTOR CURRENT COUNTER CLOCKWISE CORRELATE DOUBLE SAMPLING SIGNAL CHORMINACE MEMORY SIGNAL CHROMINANCE FIELD MEMORY CHROMINANCE GAIN Channel 1(Odd Field) CHARACTER MIX CLOCK CLOCK 2(824XFH:12. 875MHz) CHROMA MEMORY OUTPUT CHORMO OUTPUT(DIGITAL) CLAMP PULSE OB CLAMP PULSE CHIP SELECT CLOCK PHASE SELECET CROSSTALK SWITCH CLOCWISE CYLINDER MOTOR CURRENT or POWER	I	INTER IOU IOV IRDET IRIS/SH IRQ
D	D MODE0~2 DAC		INTERVAL RECORDING R-Y ANALOGUE SIGNAL OUTPUT B-Y ANALOGUE SIGNAL OUTPUT INFRARED RAYS DETECTION IRIS/SHUTTET CONTROL INTERRUPT REQUEST
	DIGITAL MODE SWITCH SIGNAL DIGITA/ANALOG CONVERTER	K	KANDO
		L	LD LEDCNT LI-BATT LSB LVL
		M	MD MFF MFN MSB MIX N. R. D
			LOAD PULSE LED CONTROL LITHIUM BATTERY LEAST SIGNIFICANT BIT LPF SWITCH FOR AUTO FOCUS MODILATOR MANUAL FOCUS FAR MANUAL FOCUS NEAR MOST SIGNIFICANT BIT NON REC DATA MIX

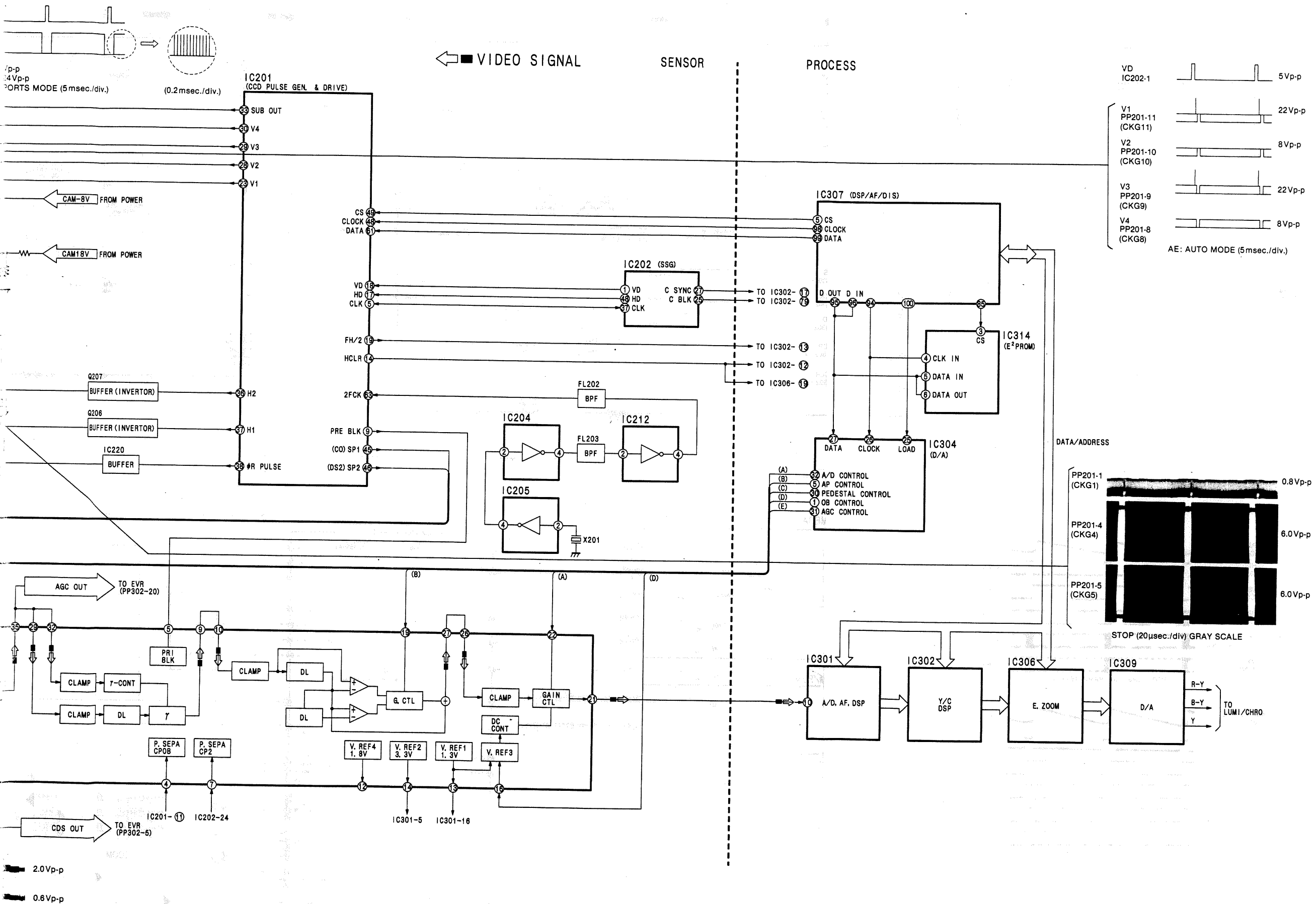
INITIAL/LOGO	ABBREVIATIONS	INITIAL/LOGO	ABBREVIATIONS
N	N/F N/P NC NC1~3 NDE NEAR NLE NRD NRDBLK NRE NWE	T	TRFIX TRIWAVE TRP
	NEAR/FAR(FOCUS) NTSC/PAL NO CONNECTION NPN TRANSISTOR C-SIDE NON LINER DE-EMPHAIS NEAR(FOCUS) NON LINER EMPHASIS NON REC DATA NON REC DATA BLNKING READ ENABLE INPUT(LOW ACTIVE) WRITE ENABLE(LOW ACTIVE)	U	U/V SECT UVSEL
O	OBCNT OE OP OSD		R-Y/B-Y SELECT SIGNAL R-Y/B-Y SELECT SIGNAL
P	PB1~3 PBLK PCBM(B-Y) PCBM(R-Y) PEDECNT PORIN or POR POSCOM PREAP PREBLK PT PWM	V	V1~V4 VB VCO VCTRL VD VDDX VDDXY VDDY VDREC VIN VITC VMD1~VMD3 VMH VORP VRB VREF1R3V VREF3R3V VREFH VREFL VRI VRO VRT VSS VSSX VSSXY
R	R/B R-Y KB RAD RAE RE RE RERASE RST RSTPWD RSTR RSTW		V. CCD DRIVE PULSE VH FILTER SWITCHING VOLTAGE CONTROL OSCILLTOR VOLTAGE CHARGE CONTROL VERTICAL DRIVE PULSE X DRIVE POWER FOR COLOUR LCD XY DRIVE POWER FOR COLOUR LCD Y DRIVE POWER FOR COLOUR LCD VIDEO DELAYED REC VIDEO IN(ANALOGUE) VETICAL INTERVAL TIME CODE VELOCITY MODE DATA(SHUTTER) VH FILTER SWITCHING VIDEO OVERLAP VOLTAGE REFERENCE BOTTOM(1. 3V) REFERENCE VOLTAGE 1. 3V REFERENCE VOLTAGE 3. 3V REFERENCE VOLTAGE HIGH SIDE REFERENCE VOLTAGE LOW SIDE REFERENCE VOLTAGE INPUT REFERENCE VOLTAGE OUTPUT VOLTAGE REFERENCE TOP(3. 3V) VERTICAL SYNC SIGNAL X DRIVER POWR FOR COLOUR LCD X-Y DRIVER POWR FOR COLOUR LCD
S	S/S SBD SBI SBO SCK SCR SDET SH/IRIS STAB STRB SUB CNT	W	WAD or WAE WE WHD
	START/STOP SERIAL DATA SERIAL INPUT SERIAL OUTPUT SERIAL CLOCK SERCH S-VHS DETECT SHUTTER/IRIS CONTROL S-VHS TAB SWITCH S-VHS TAB MODE SUB CONTROL		WRITE ADDRESS ENABLE WRITE ENABLE WIDE HORIZONTAL DRIVE PULSE
T	TBC TBC. C OUT TBC. V OUT TL	Y	Y0~Y7(Y8) YNCST YNR
	TIME BASE CORRECTOR TIME BASE CORRECTOR CHROMA OUT TIME BASE CORRECTOR VIDEO OUT TORQUE LIMIT		8BIT(9BIT)LUMINANCE DIGITAL SIGNAL NOISE CANCELER NOISE REDUCTION
		Z	Z ENC Z-MIC ZENC1/ZENC4 ZMT(+)/(-) ZMTER ZMW
			ZOOM ENCODER ZOOM MIC ZOOM ENCEODER OUTPUT ZOOM MOTOR (+)/(-) ZOOM MOTOR TELE SIDE ZOOM MOTOR WIDE SIDE

3-2. OVERALL BLOCK DIAGRAM



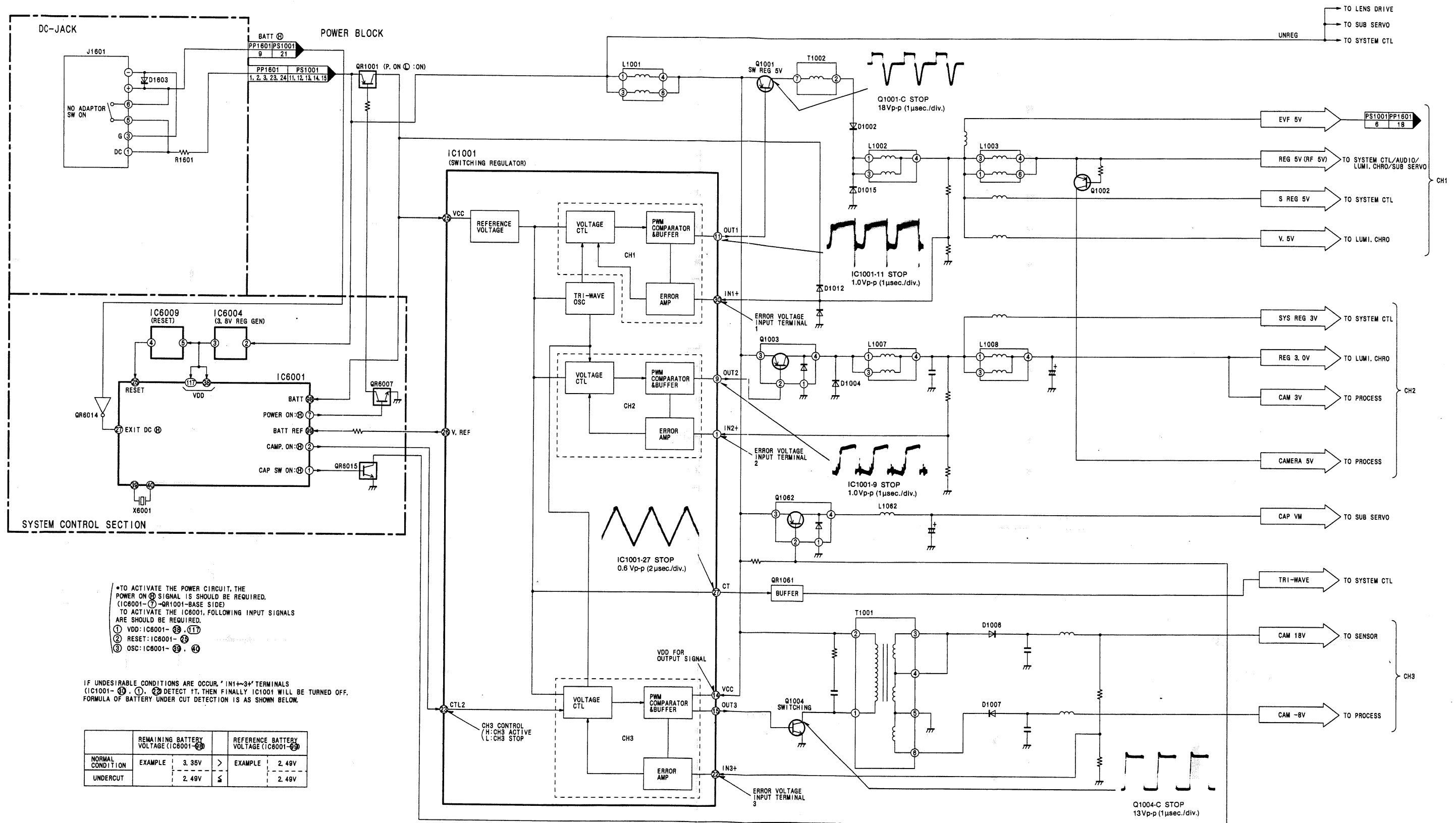
3-3. SENSOR BLOCK DIAGRAM



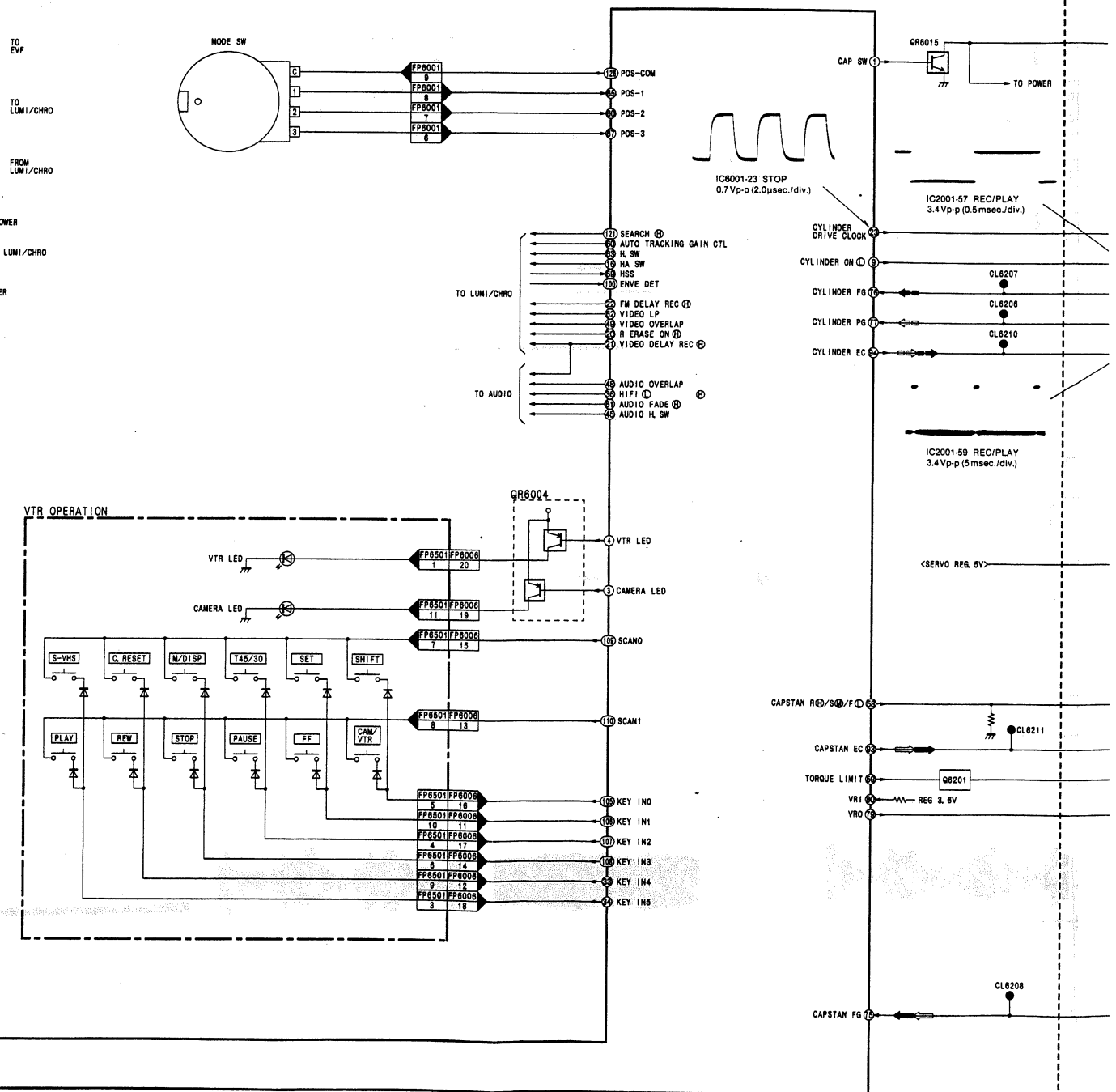
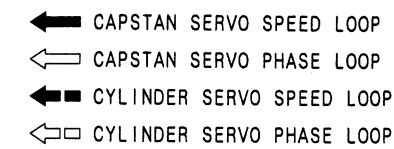
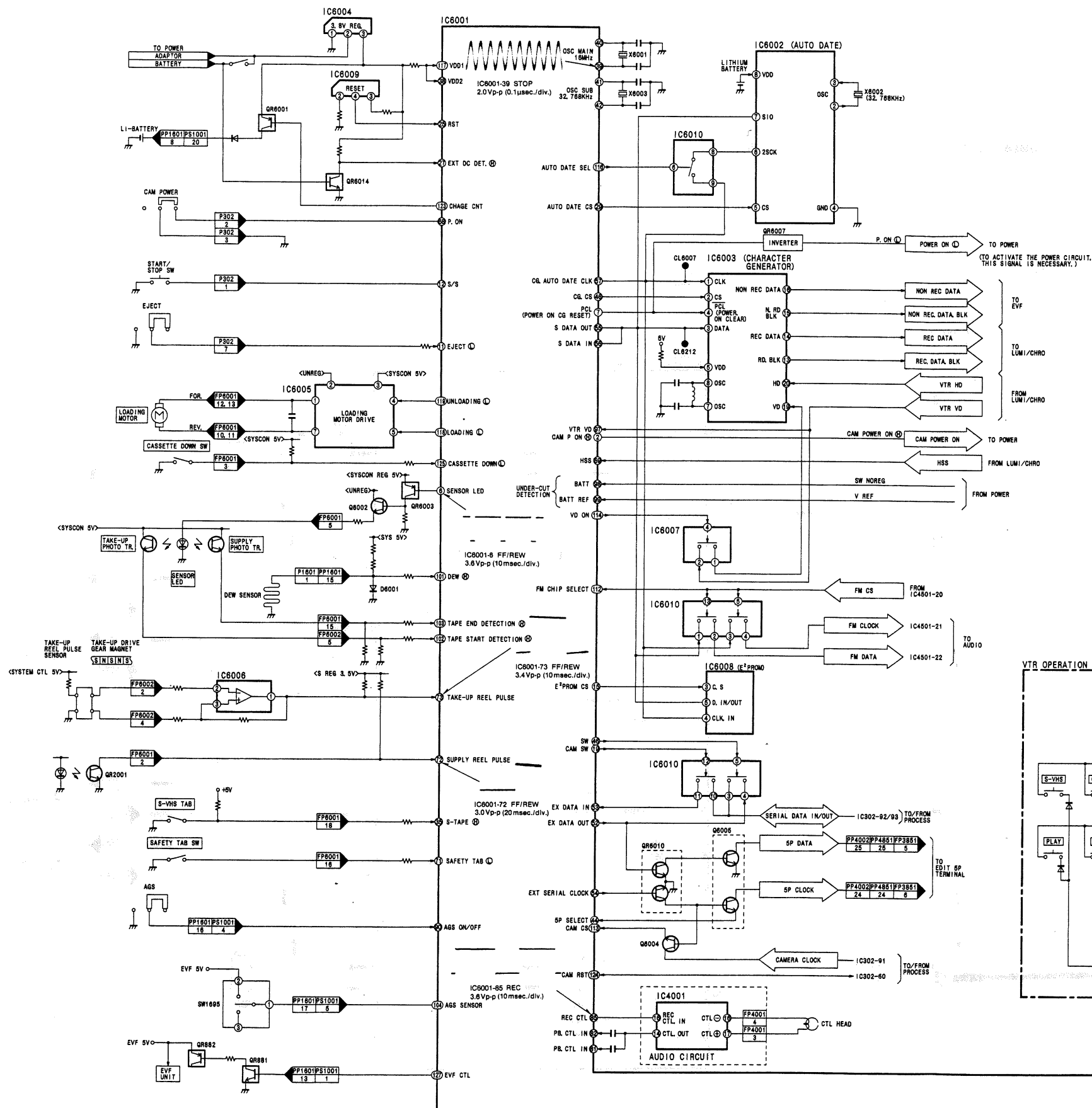


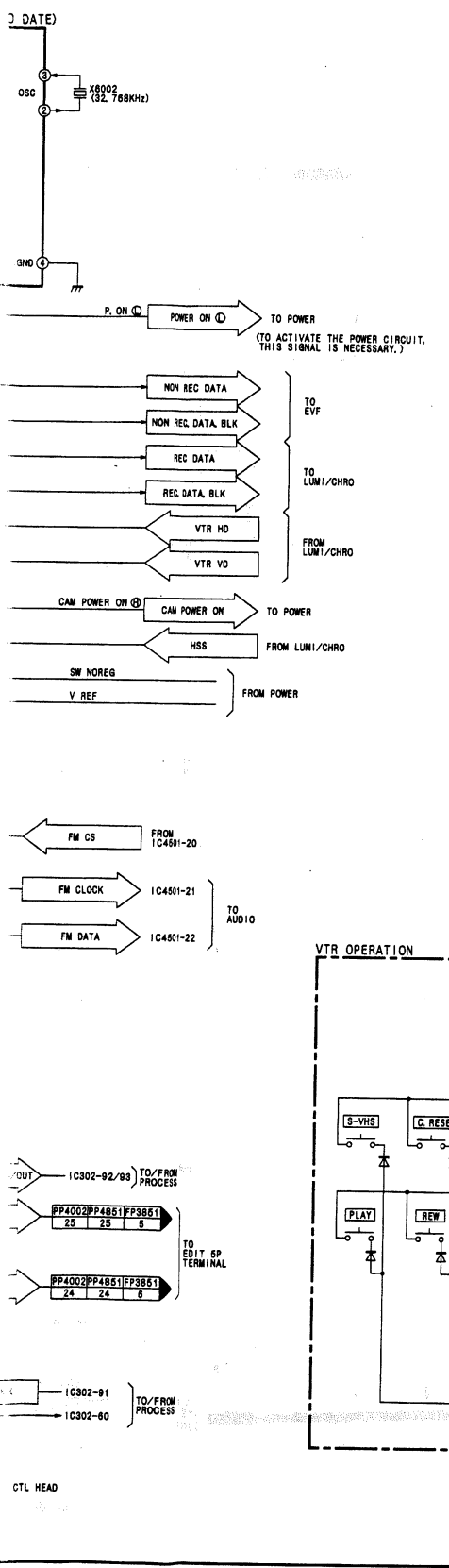


3-6. POWER BLOCK DIAGRAM

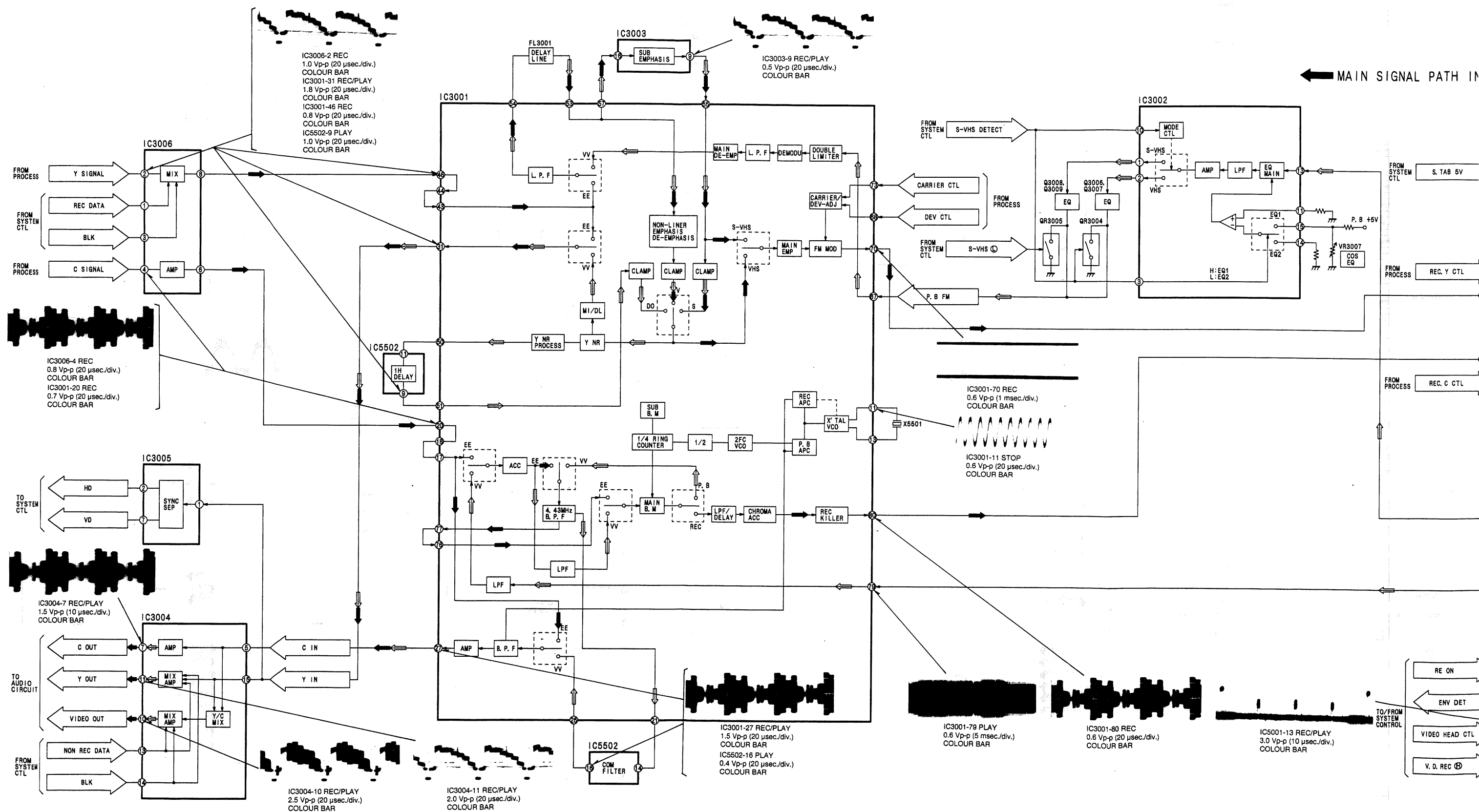


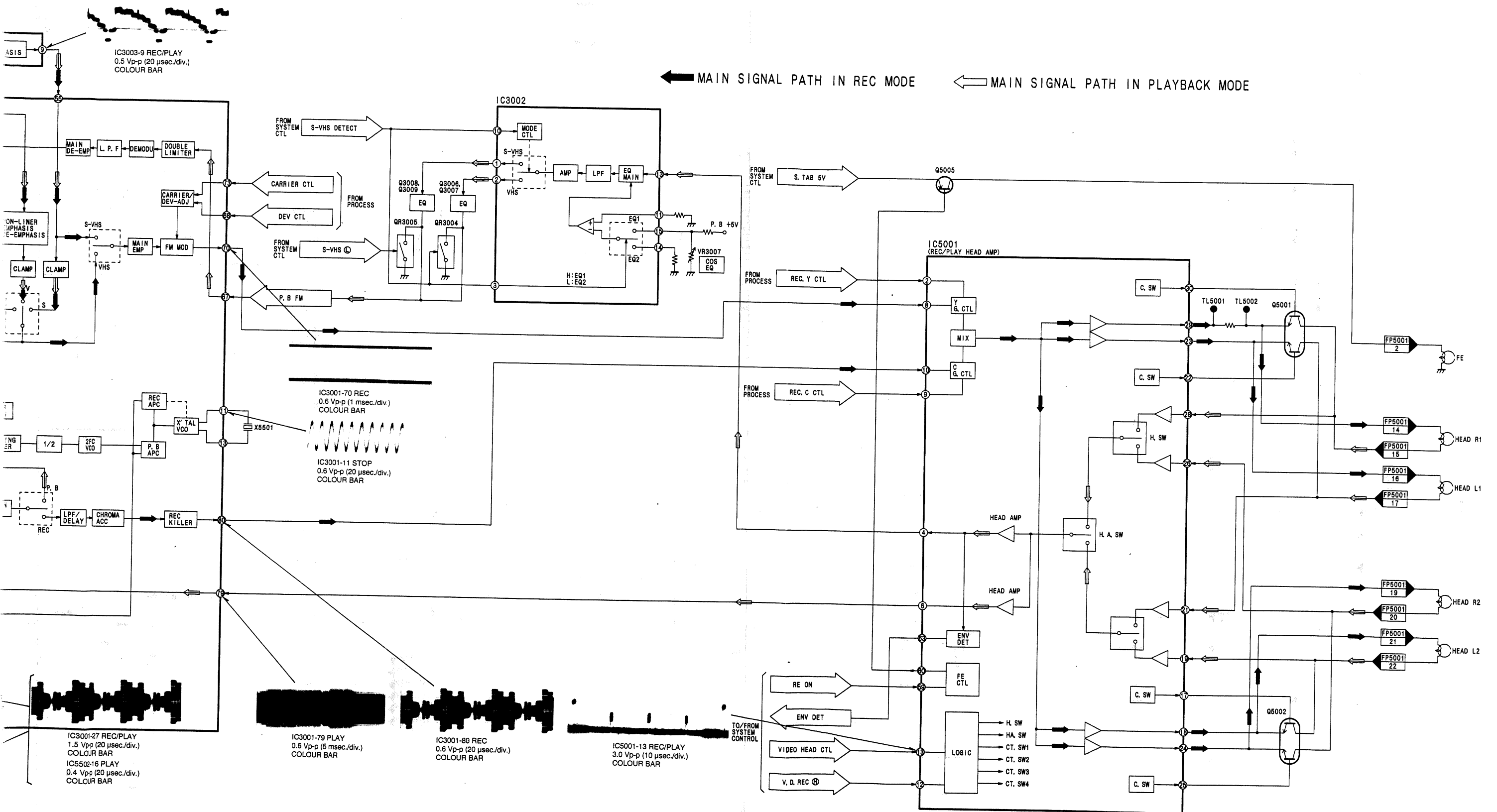
3-7. SYSTEM CONTROL & SERVO BLOCK DIAGRAM



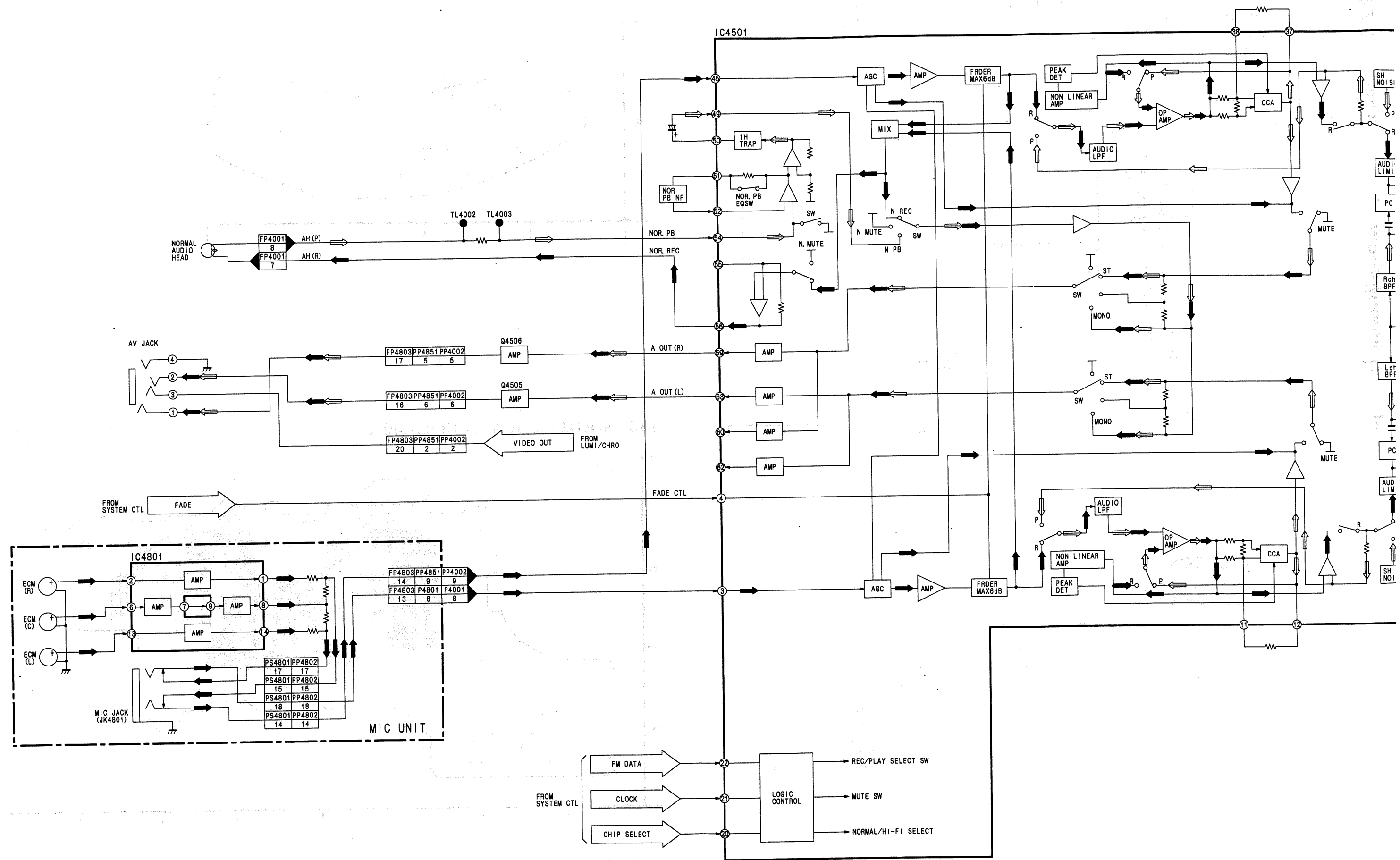


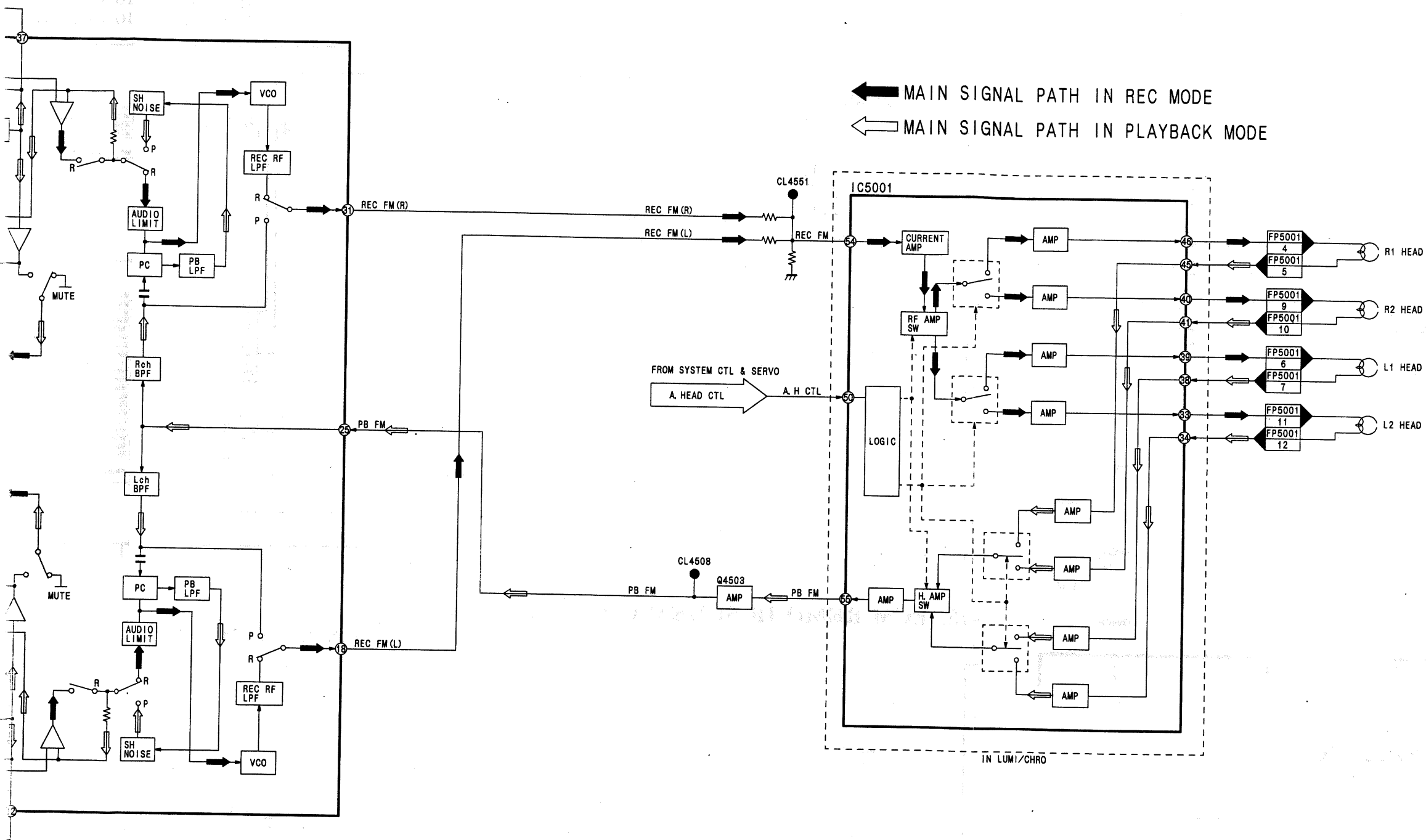
3-8. LUMINANCE/CHROMINANCE & HEAD AMP BLOCK DIAGRAM

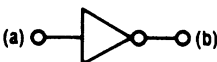
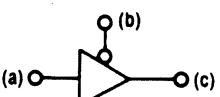
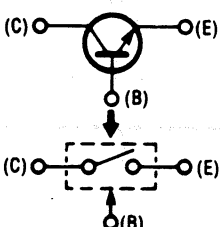
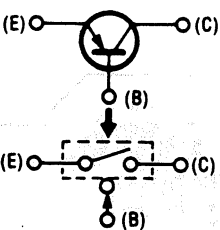
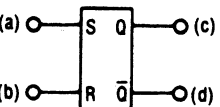




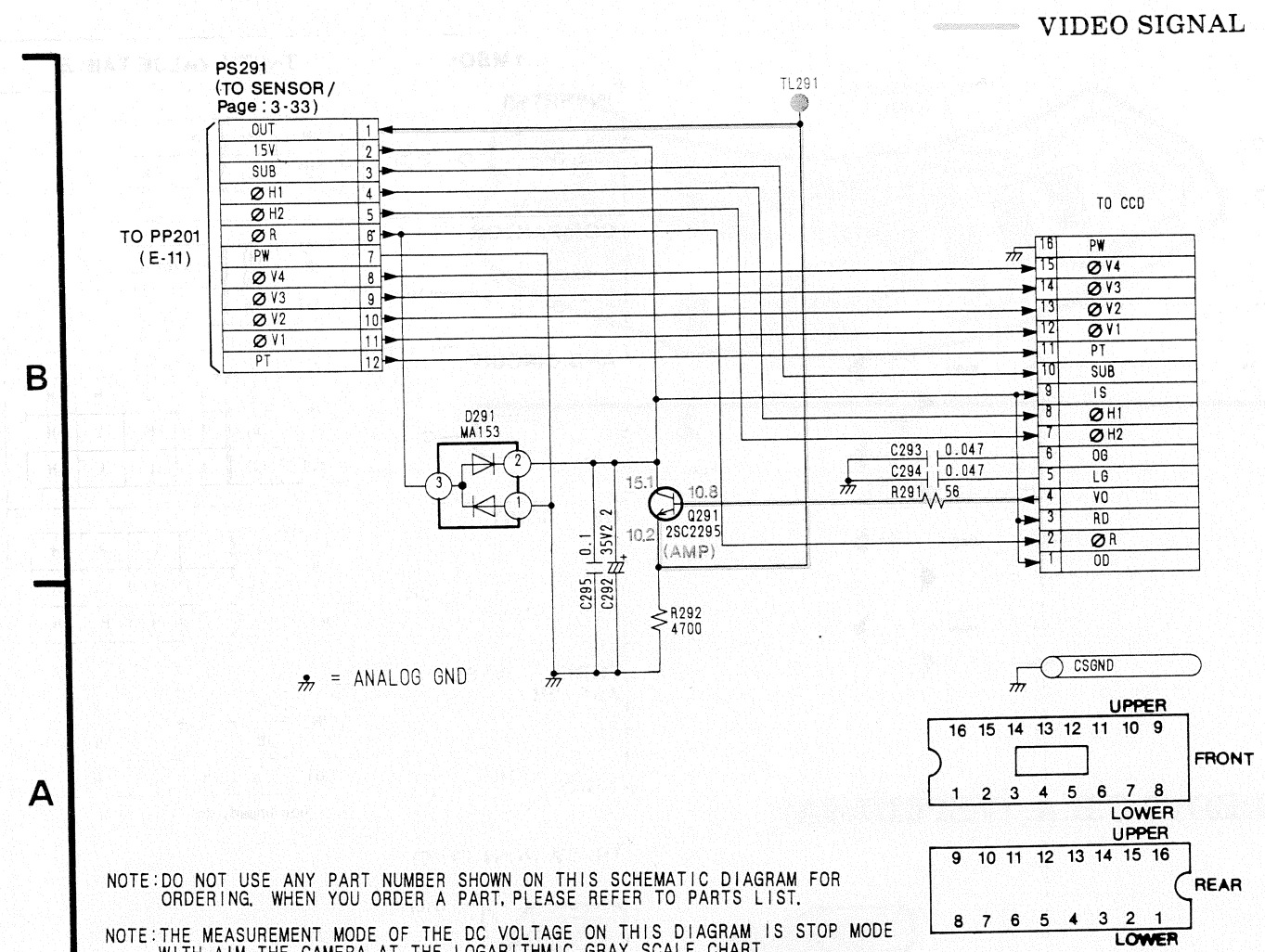
3-9. AUDIO BLOCK DIAGRAM



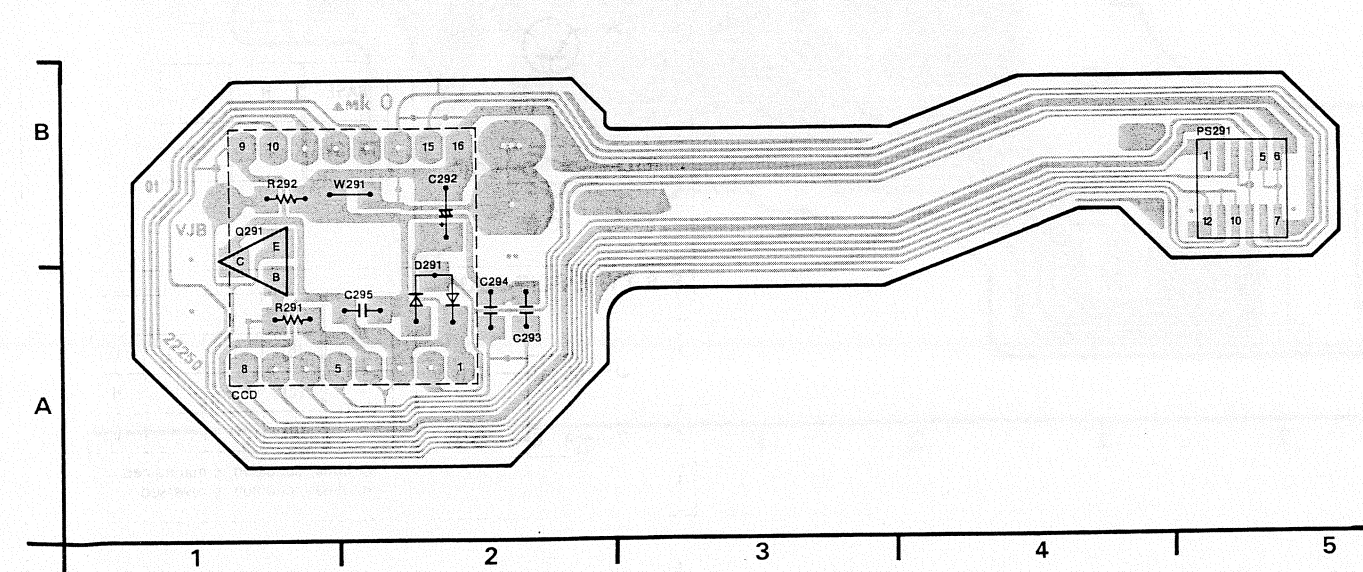


SYMBOL	TRUTH VALUE TABLE																				
INVERTER 	<table><tr><td>IN</td><td>(a)</td><td>H</td><td>L</td></tr><tr><td>OUT</td><td>(b)</td><td>L</td><td>H</td></tr></table>	IN	(a)	H	L	OUT	(b)	L	H												
IN	(a)	H	L																		
OUT	(b)	L	H																		
COMPARATOR 	<table><tr><td>IN</td><td>(a)</td><td>(a) > (b)</td><td>(a) < (b)</td></tr><tr><td></td><td>(b)</td><td></td><td></td></tr><tr><td>OUT</td><td>(c)</td><td>H</td><td>L</td></tr></table>	IN	(a)	(a) > (b)	(a) < (b)		(b)			OUT	(c)	H	L								
IN	(a)	(a) > (b)	(a) < (b)																		
	(b)																				
OUT	(c)	H	L																		
AND CIRCUIT 	<table><tr><td>IN</td><td>(a)</td><td>L</td><td>L</td><td>H</td><td>H</td></tr><tr><td></td><td>(b)</td><td>L</td><td>H</td><td>L</td><td>H</td></tr><tr><td>OUT</td><td>(c)</td><td>L</td><td>L</td><td>L</td><td>H</td></tr></table>	IN	(a)	L	L	H	H		(b)	L	H	L	H	OUT	(c)	L	L	L	H		
IN	(a)	L	L	H	H																
	(b)	L	H	L	H																
OUT	(c)	L	L	L	H																
OR CIRCUIT 	<table><tr><td>IN</td><td>(a)</td><td>L</td><td>L</td><td>H</td><td>H</td></tr><tr><td></td><td>(b)</td><td>L</td><td>H</td><td>L</td><td>H</td></tr><tr><td>OUT</td><td>(c)</td><td>L</td><td>H</td><td>H</td><td>H</td></tr></table>	IN	(a)	L	L	H	H		(b)	L	H	L	H	OUT	(c)	L	H	H	H		
IN	(a)	L	L	H	H																
	(b)	L	H	L	H																
OUT	(c)	L	H	H	H																
THREE STATES BUFFER 	<table><tr><td>IN</td><td>(a)</td><td>H</td><td>L</td><td>H or L</td></tr><tr><td></td><td>(b)</td><td>L</td><td>L</td><td>H</td></tr><tr><td>OUT</td><td>(c)</td><td>H</td><td>L</td><td>※</td></tr></table> ※ High Impedance	IN	(a)	H	L	H or L		(b)	L	L	H	OUT	(c)	H	L	※					
IN	(a)	H	L	H or L																	
	(b)	L	L	H																	
OUT	(c)	H	L	※																	
TR. SW (NPN TYPE) 	<table><tr><td>BASE</td><td>H</td><td>L</td></tr><tr><td>TR. SW</td><td>ON</td><td>OFF</td></tr></table>	BASE	H	L	TR. SW	ON	OFF														
BASE	H	L																			
TR. SW	ON	OFF																			
TR. SW (PNP TYPE) 	<table><tr><td>BASE</td><td>H</td><td>L</td></tr><tr><td>TR. SW</td><td>OFF</td><td>ON</td></tr></table>	BASE	H	L	TR. SW	OFF	ON														
BASE	H	L																			
TR. SW	OFF	ON																			
R-S TYPE FLIP-FLOP 	<table><tr><td>IN</td><td>(a)</td><td>L</td><td>L</td><td>⌈</td></tr><tr><td></td><td>(b)</td><td>L</td><td>⌋</td><td>L</td></tr><tr><td>OUT</td><td>(c)</td><td>※</td><td>L</td><td>H</td></tr><tr><td></td><td>(d)</td><td>◆</td><td>H</td><td>L</td></tr></table> ※ Initial condition is maintained. ◆ Initial condition is reversed.	IN	(a)	L	L	⌈		(b)	L	⌋	L	OUT	(c)	※	L	H		(d)	◆	H	L
IN	(a)	L	L	⌈																	
	(b)	L	⌋	L																	
OUT	(c)	※	L	H																	
	(d)	◆	H	L																	

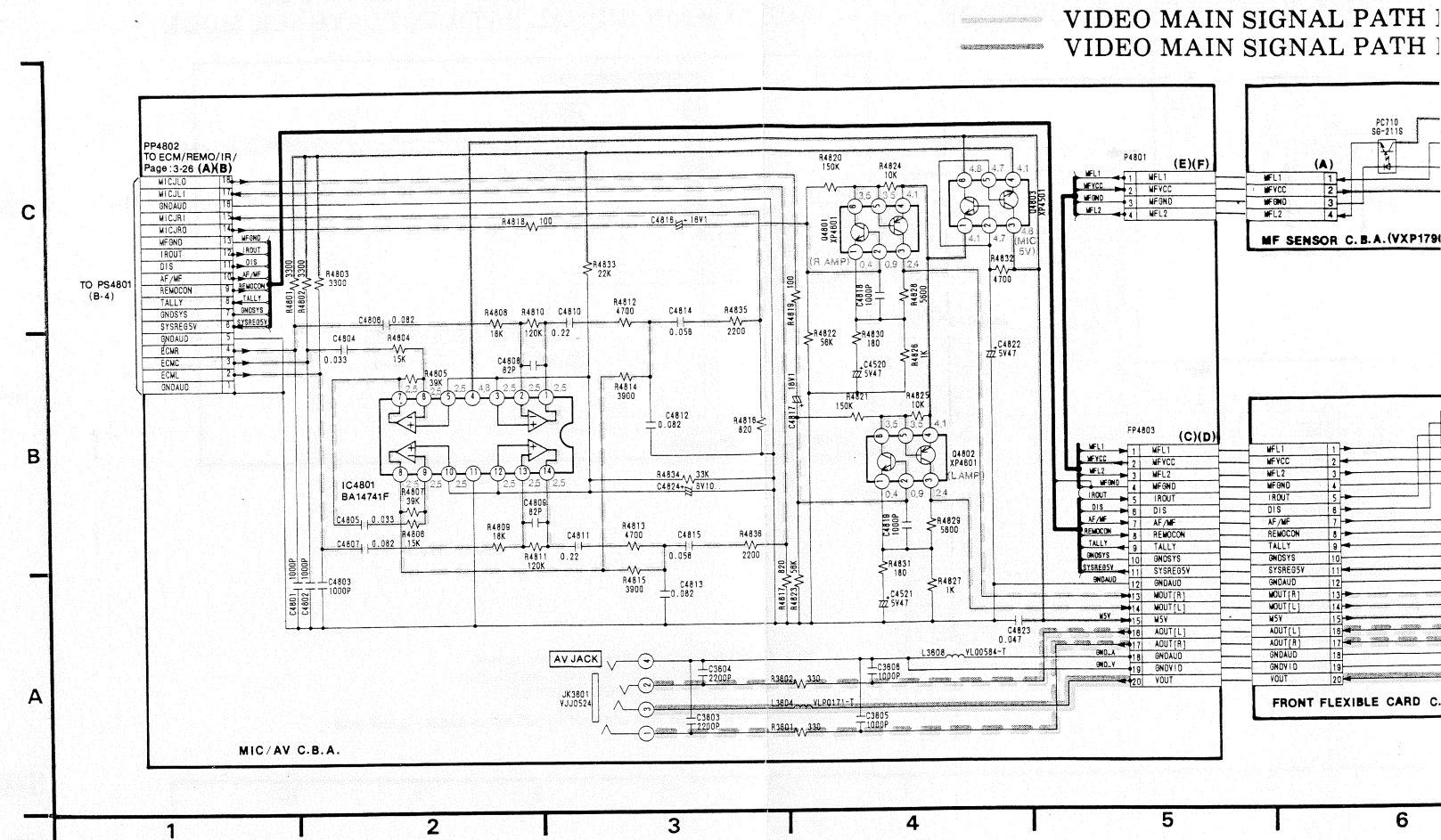
3-10. CCD FLEXIBLE CARD SCHEMATIC DIAGRAM



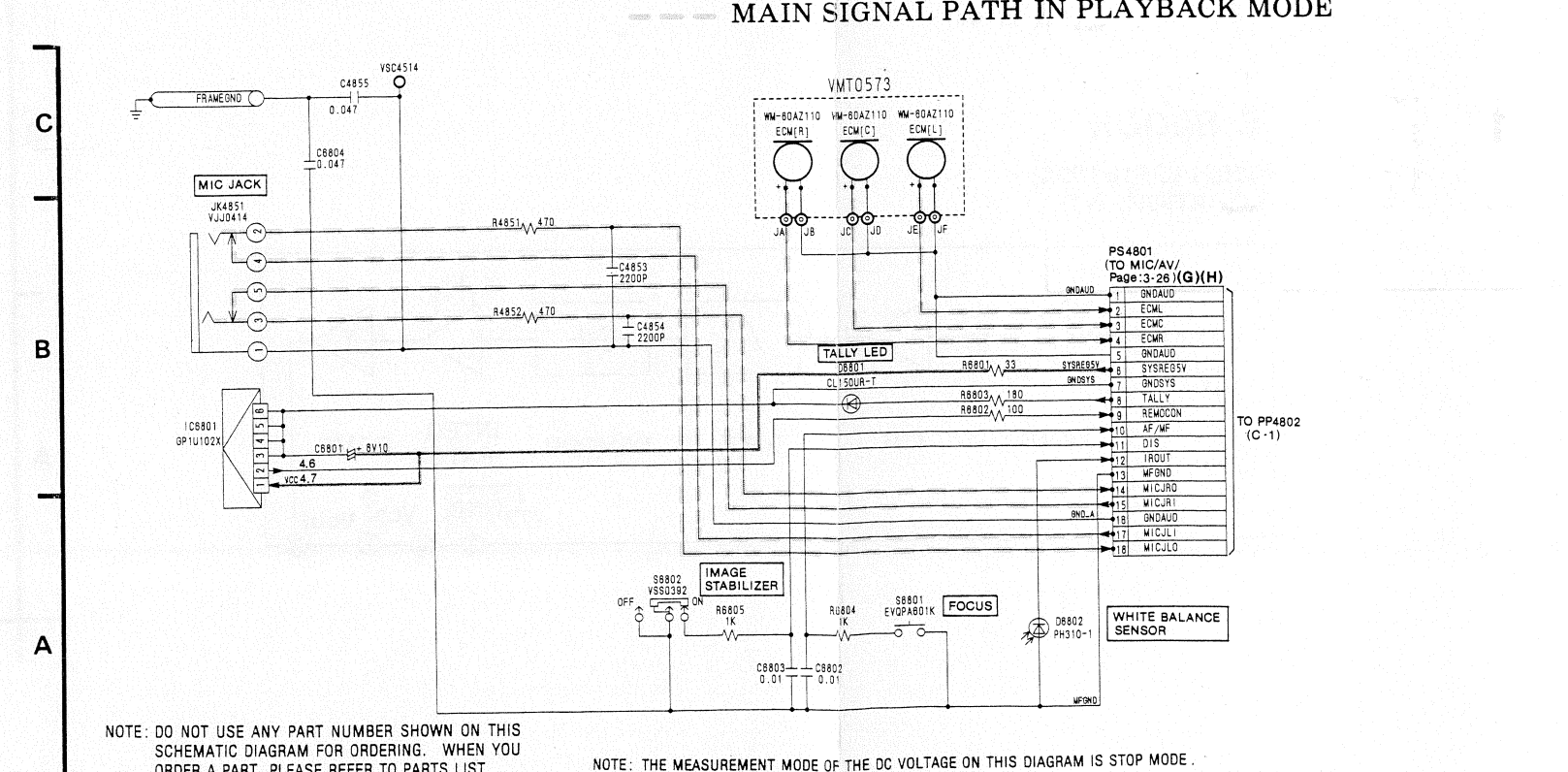
3-11. CCD FLEXIBLE CARD C.B.A. (VEP22250C)



3-12. MIC/AV, S/EDIT, MF SENSOR AND FRONT FLEXIBLE CARD SCHEMATIC D



3-13. ECM/REMO/IR SCHEMATIC DIAGRAM



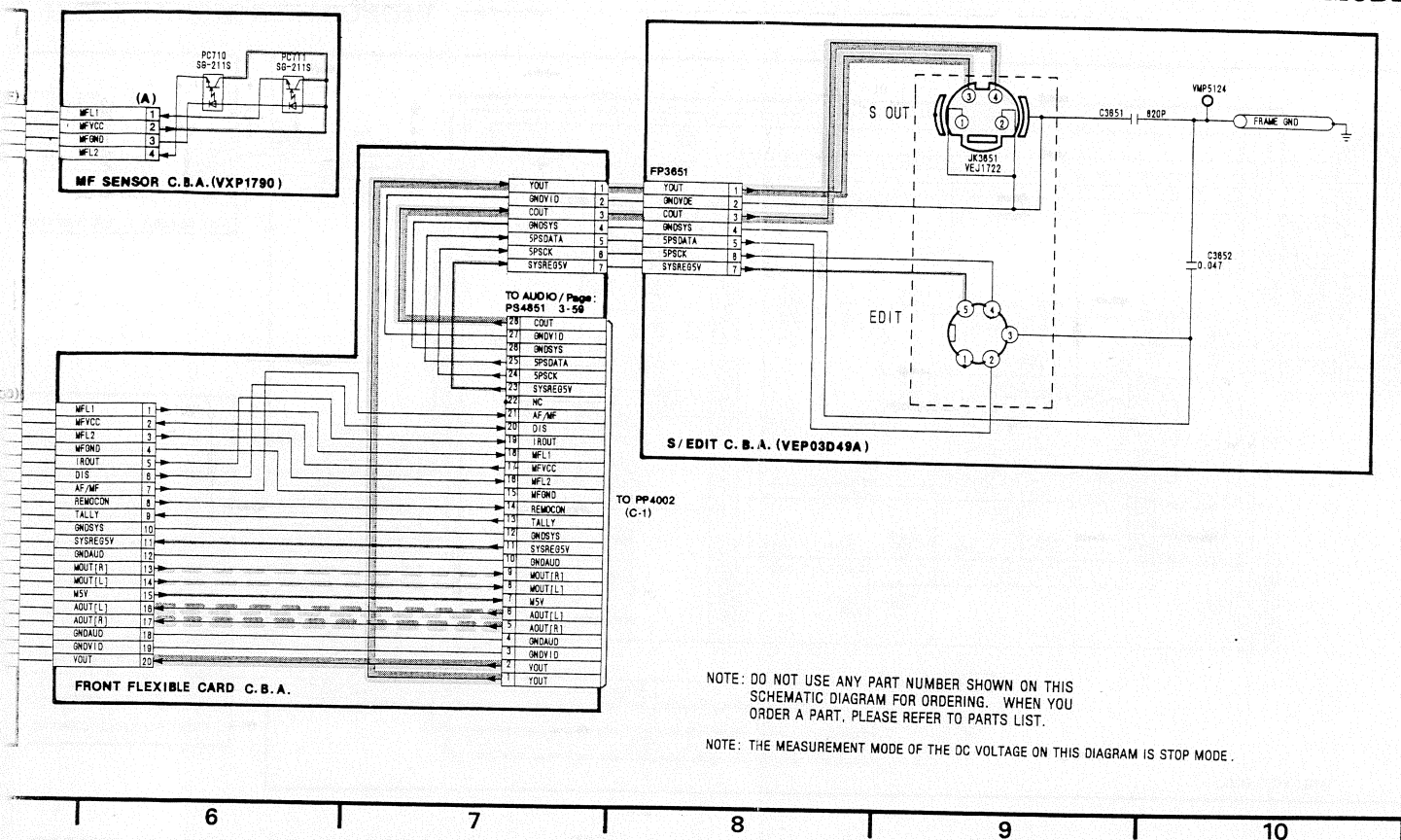
SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN REC MODE

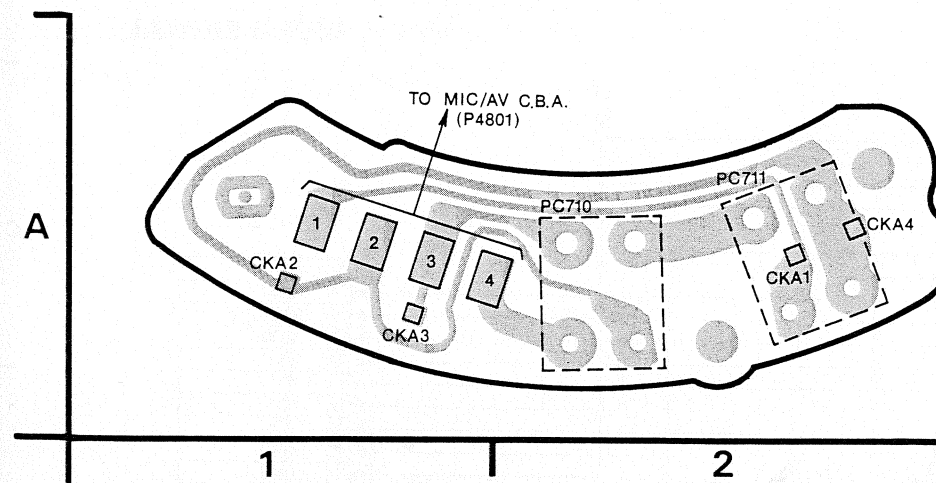
MAIN SIGNAL PATH IN PLAYBACK MODE

AUDIO MAIN SIGNAL PATH IN REC MODE

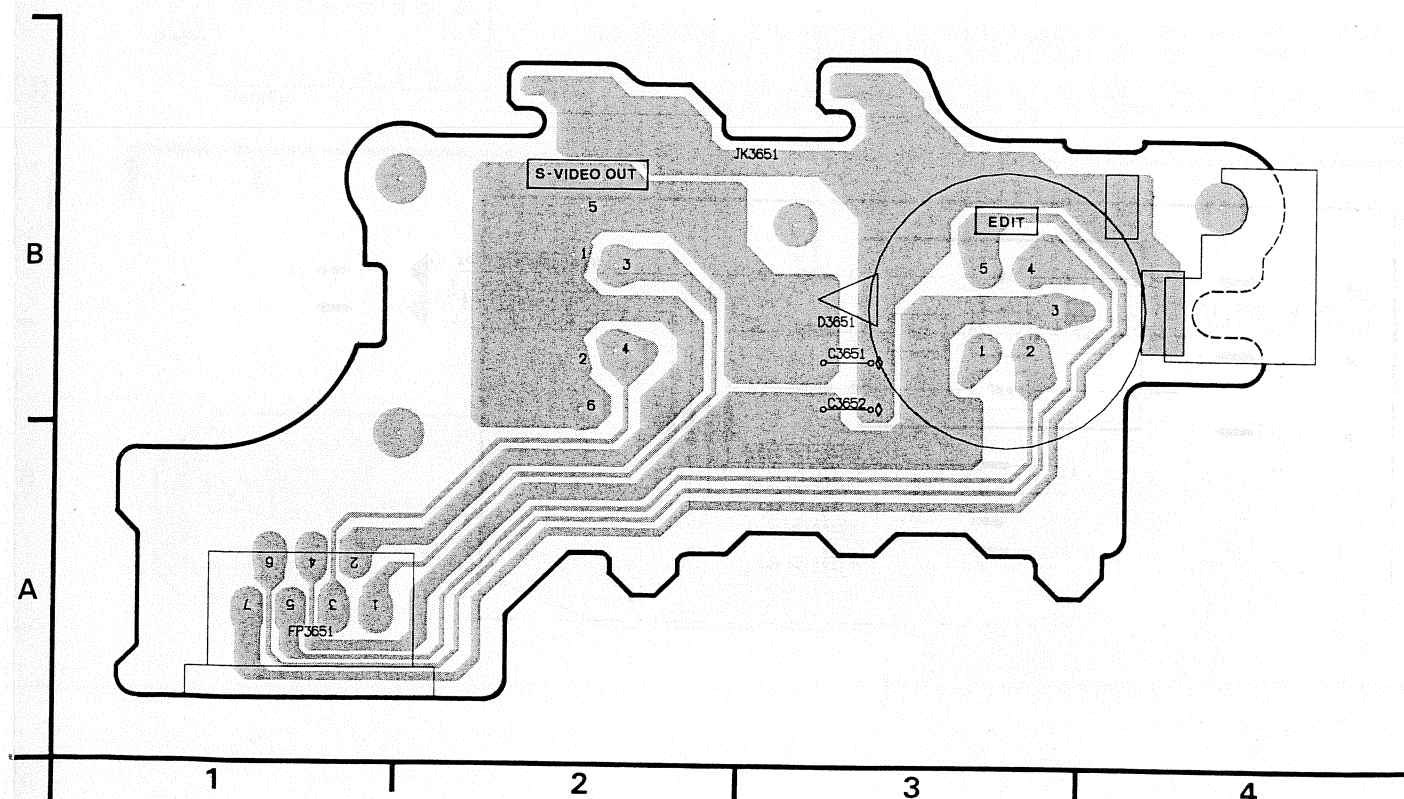
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE



3-14. MF SENSOR C.B.A. (VXP1790)

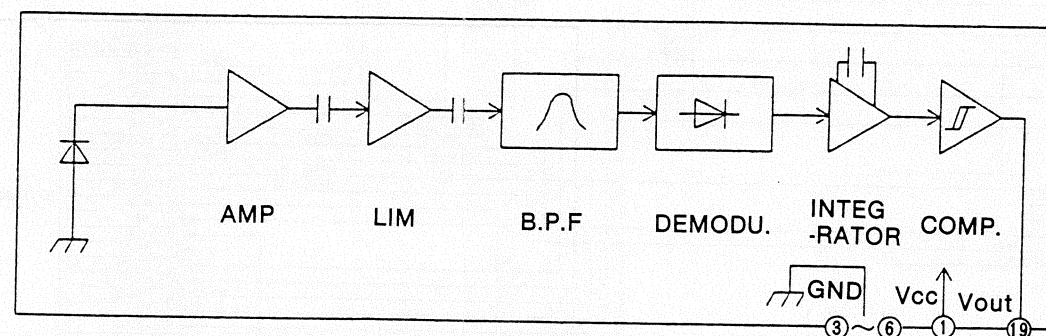


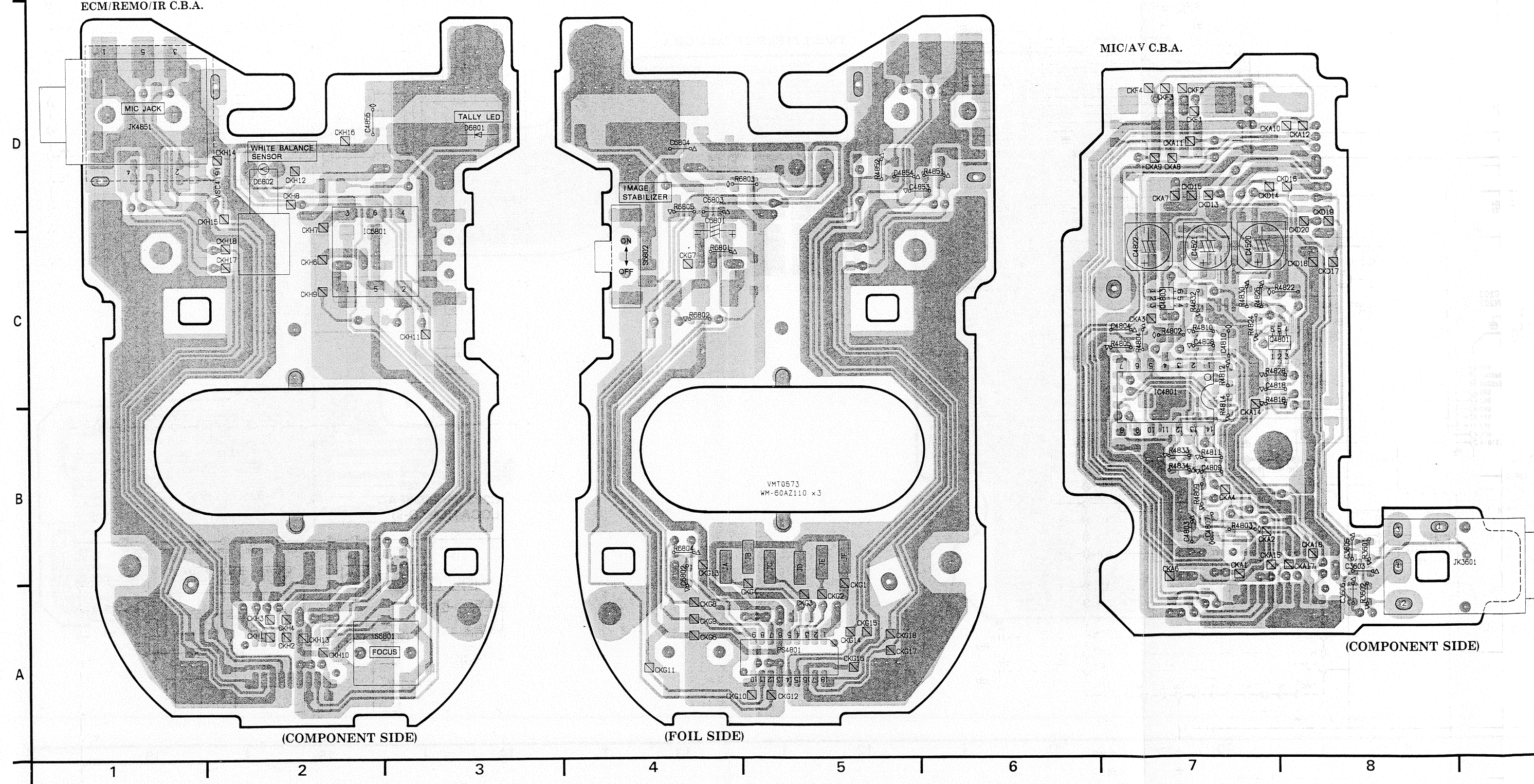
3-15. S/EDIT C.B.A. (VEP03D49A)



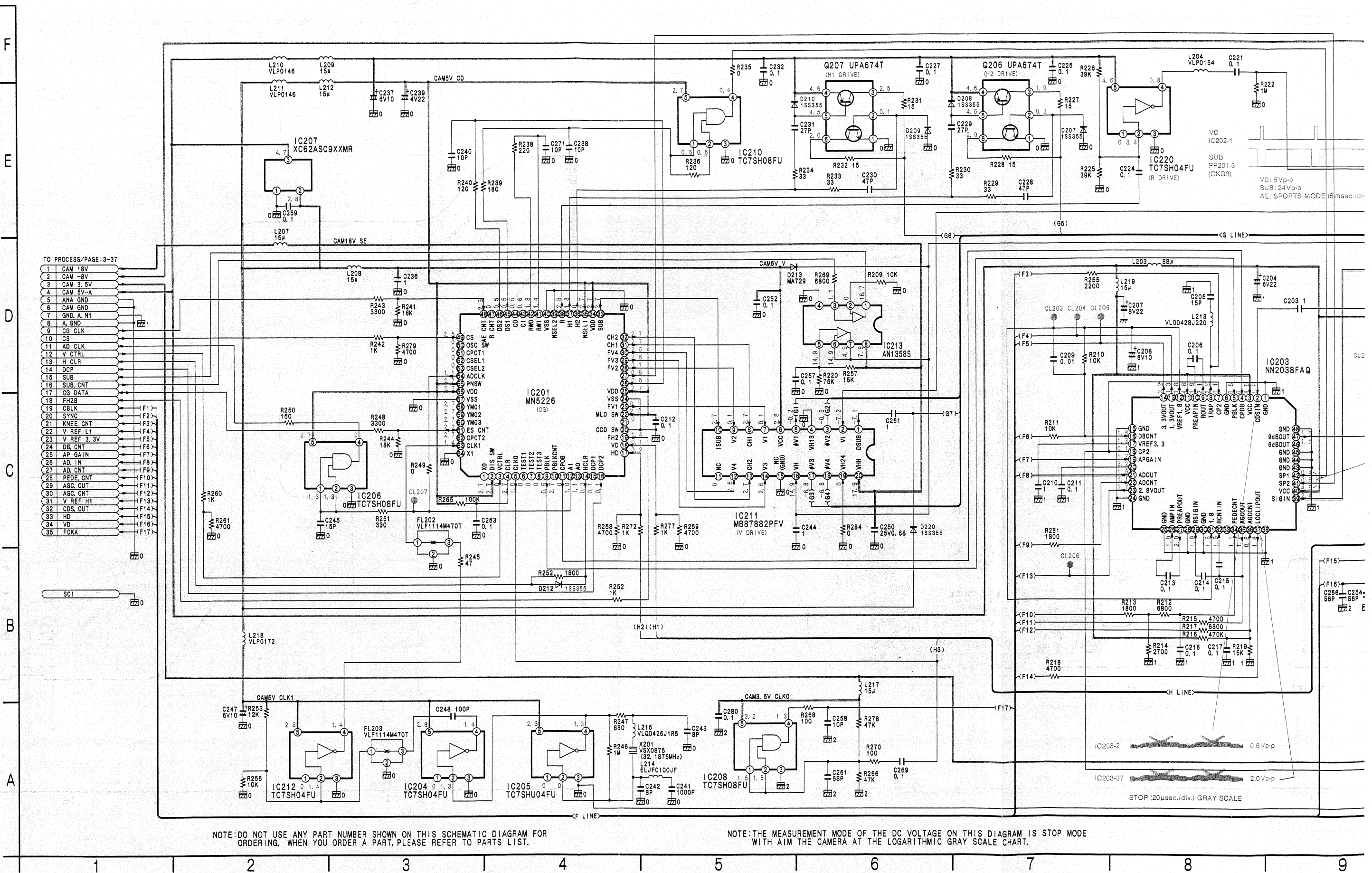
IC BLOCK

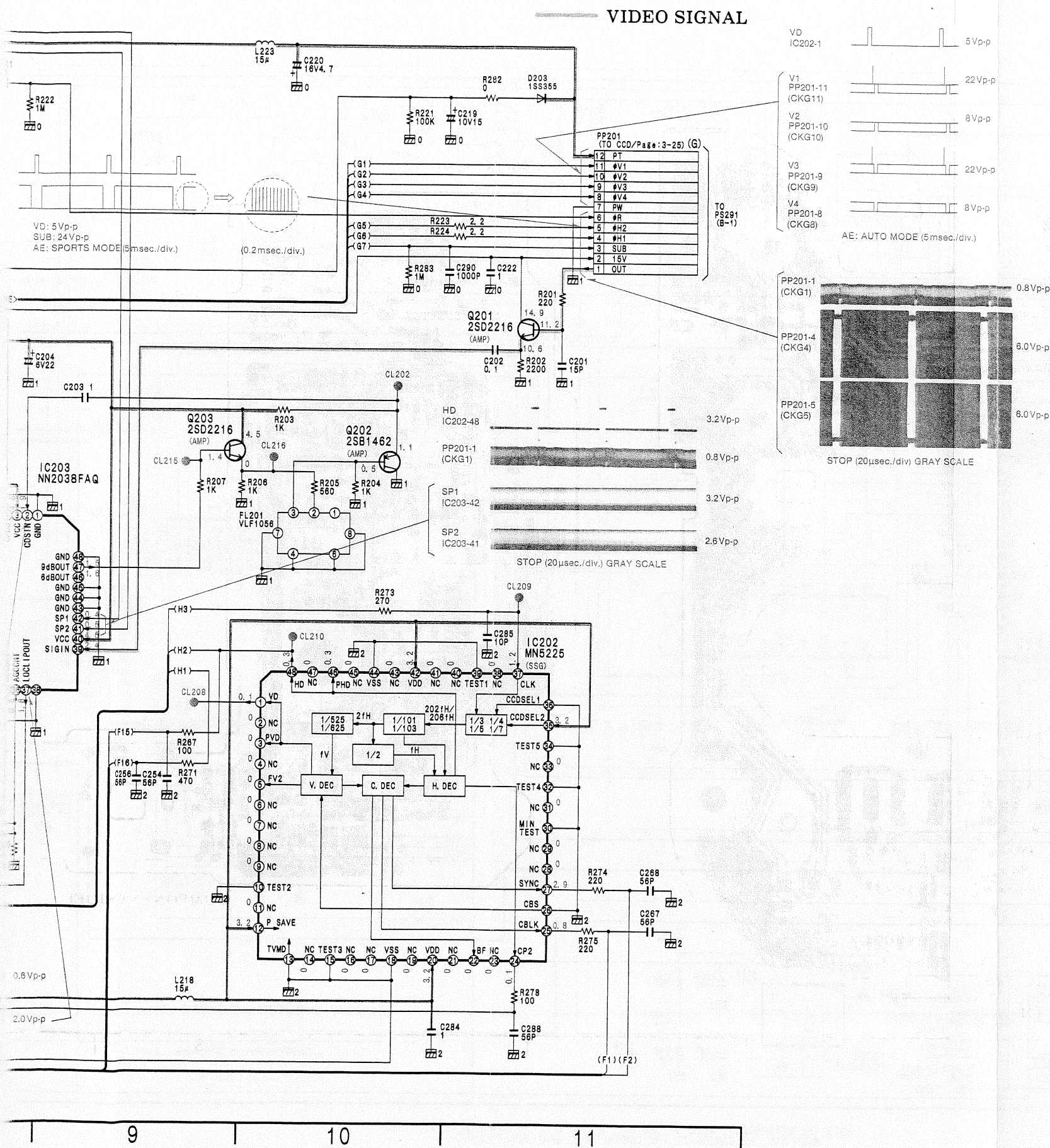
IC6801 (GP1U102X)
(LOCATION: B-1)





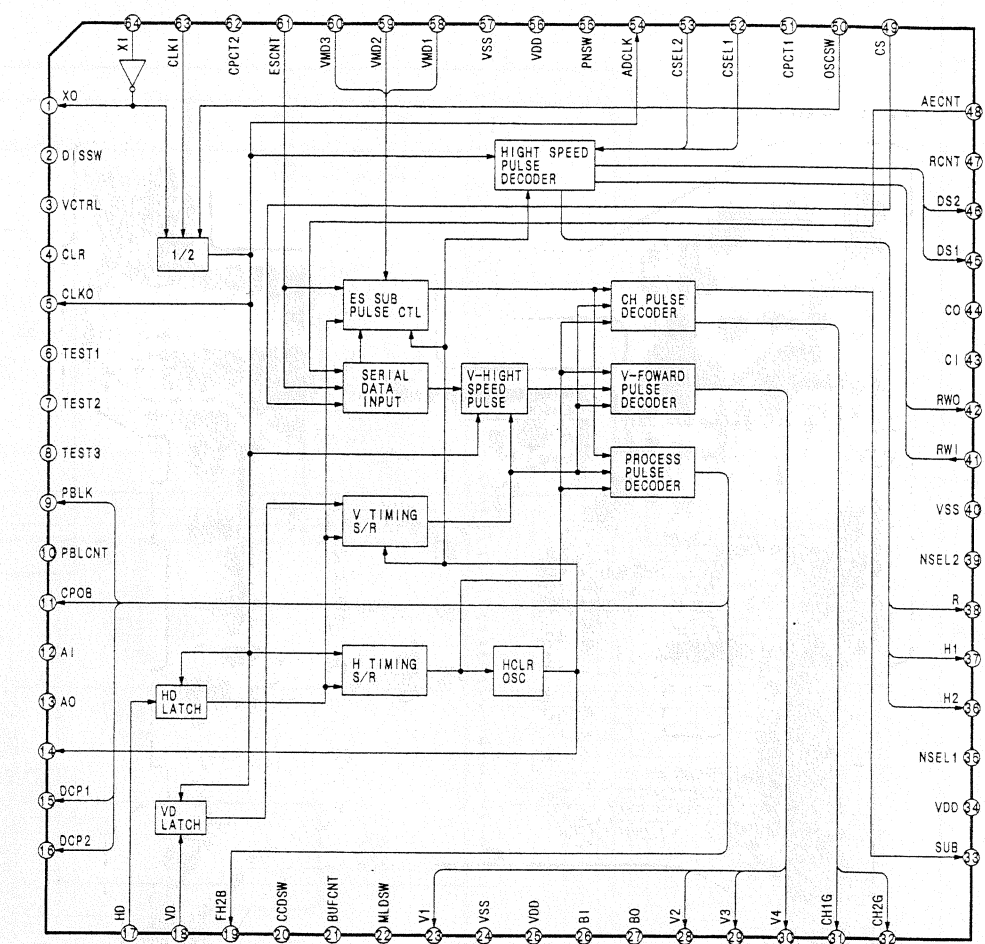
3-17. SENSOR SCHEMATIC DIAGRAM



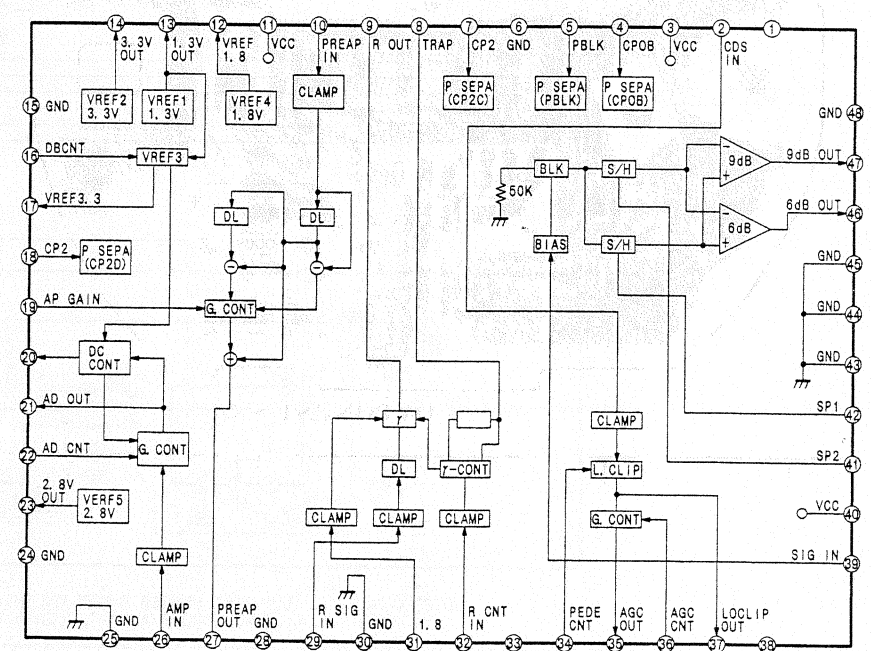


IC BLOCK

**IC201 (MN5226)
(LOCATION: C-4)**

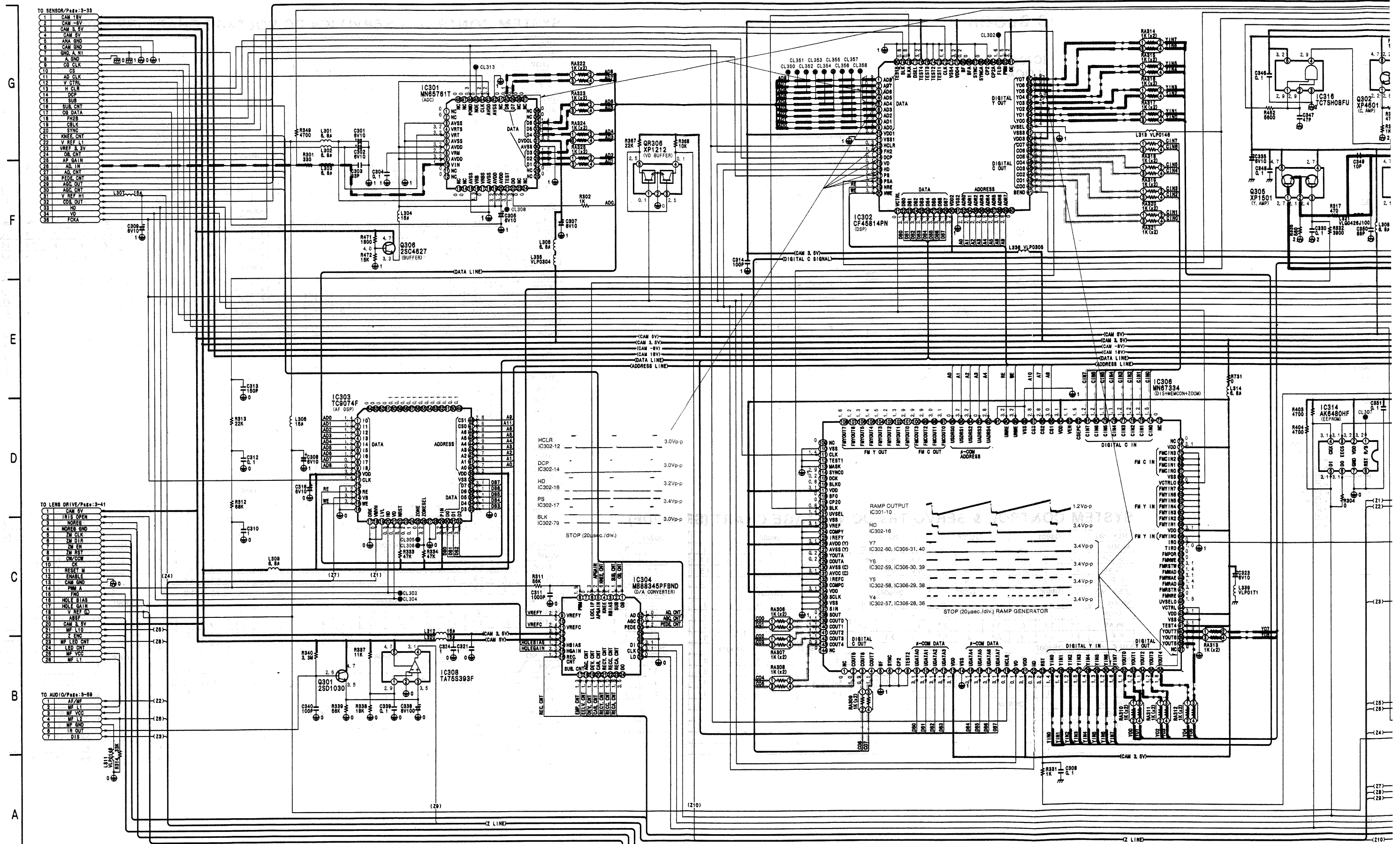


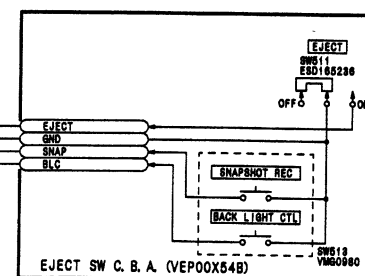
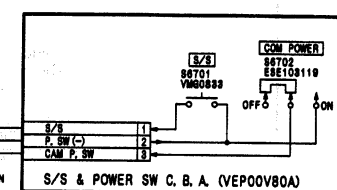
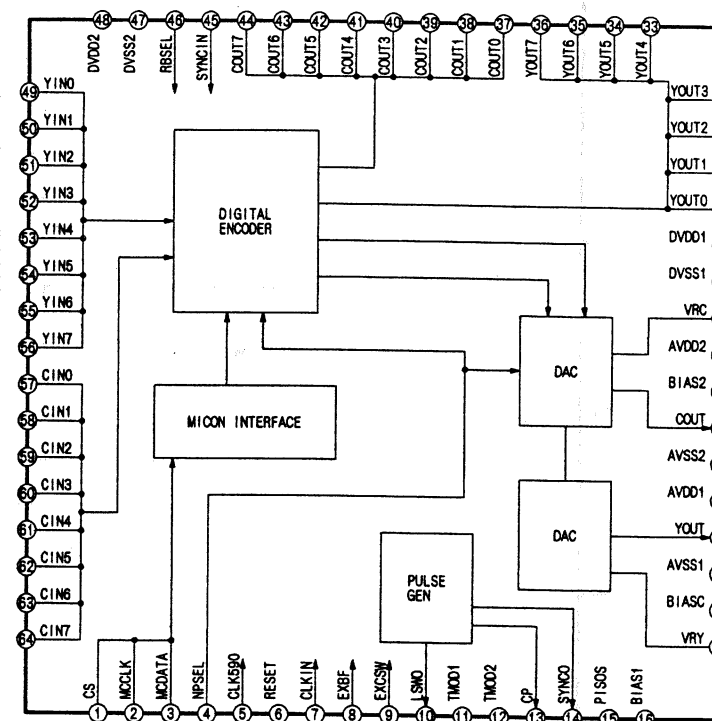
**IC203 (MN2038FAQ)
(LOCATION: D-9)**



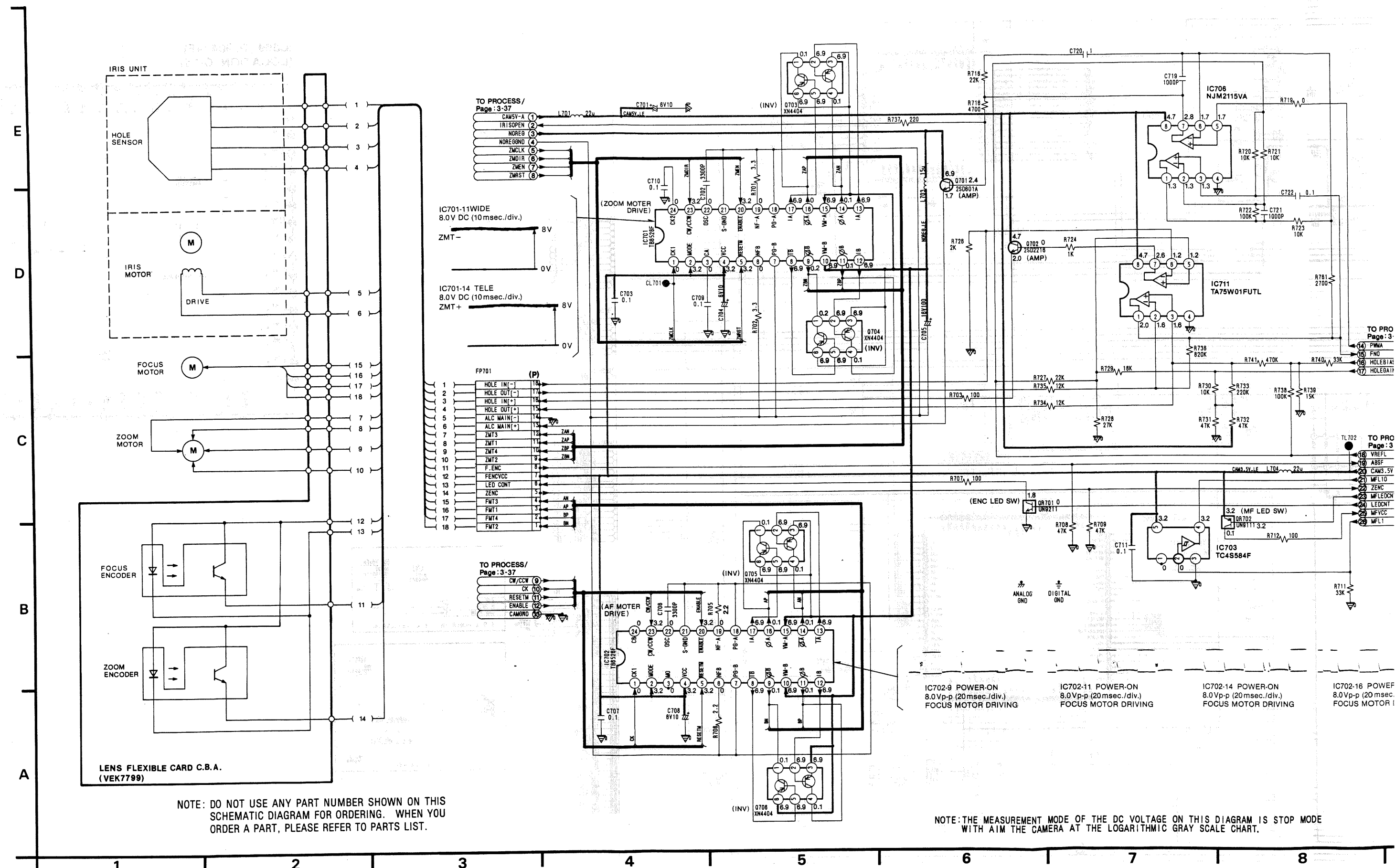
3-18. PROCESS SCHEMATIC DIAGRAM

--- PRE VIDEO





3-19. LENS DRIVE SCHEMATIC DIAGRAM

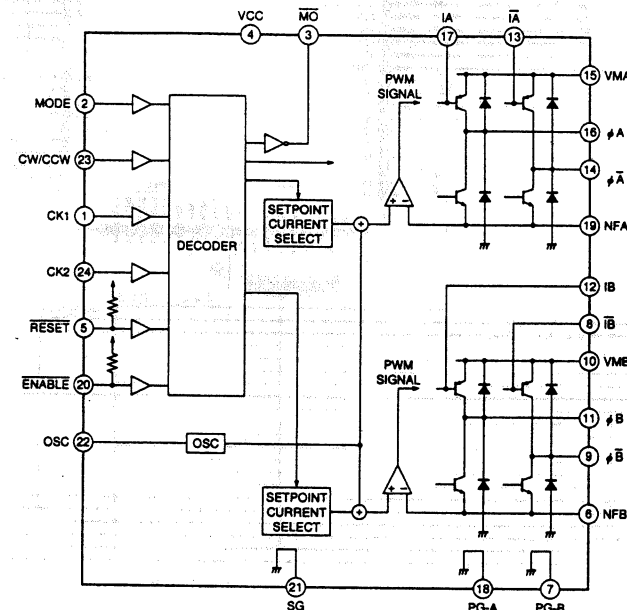


NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

IC BLOCK

IC701, 702 (TB6526F)
(LOCATION: D-4, B-4)



SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE)

REF. NO.	Q8001			Q8002			Q8003			Q8005						Q8201		
MODE	E	C	B	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B
STOP	2.8	3.2	0.2	0.1	6.9	0	6.8	6.6	6.0	0	2.8	0.2	4.7	0.1	4.7	3.7	3.7	3.2
PLAY	3.7	1.8	0.3	0.2	6.9	0	6.8	6.6	6.0	0	1.7	0.3	4.7	0.1	4.5	3.7	3.7	3.2
F.F	2.6	3.2	0.2	0.8	6.9	0.5	6.8	6.6	6.0	0	2.8	0.2	4.7	0.1	4.5	3.7	3.7	3.2

REF. NO.	QR8001			QR8002			QR8003			QR8004						QR8005		
MODE	E	C	B	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B
STOP	3.7	3.7	0	3.4	0	3.7	3.4	0	3.7	3.8	3.7	3.3	3.4	0	0	0	3.2	0
PLAY	3.7	3.7	0	3.4	0	3.7	3.4	0	3.7	3.8	3.7	3.3	3.4	0	0	0	3.2	0
F.F	3.7	3.7	0	3.4	0	3.7	3.4	0.3	3.5	3.8	3.7	3.3	3.4	0	0	0	3.2	0

REF. NO.	QR8007			QR8010			QR8011			QR8014			QR8015		
MODE	E	C	B	1	2	3	4	5		E	C	B	E	C	B
STOP	0	0	3.7	3.2	0	3.0	0.3	0.1		4.8	4.8	4.1	0	3.7	0
PLAY	0	0	3.7	3.2	0	3.0	0.3	0.1		4.8	4.8	4.1	0	3.7	0
F.F	0	0	3.7	3.1	0	3.0	0.3	0.1		4.8	4.8	4.1	0	3.7	0

REF. NO.	QR8050				
MODE	1	2	3	4	5
STOP	0	0	0	0	0
PLAY	0	0	0	0	0
F.F	0	0	0	0	0

SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE)

REF. NO.	IC8001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	3.6	3.7	0	3.7	3.7	3.7	3.7	3.7	0	3.7	3.4	1.8	0	0	0	0	3.7	3.7	0
PLAY	0	0	3.7	0	0	3.7	3.7	0	0	3.2	3.7	3.4	1.8	0	0	1.8	0	3.7	3.7	0
F.F	0	3.7	3.7	0	3.7	3.5	3.7	3.7	0	0	3.7	3.4	1.8	0	0	1.8	0	3.7	3.7	0

REF. NO.	IC8001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	1.9	3.7	3.7	0	3.7	3.4	3.4	0	3.4	0	3.4	3.4	3.4	0	4.0	3.8	1.9	1.8
PLAY	0	0	1.9	3.7	3.7	0	3.7	3.4	0	0	3.4	0	3.4	3.4	3.4	0	4.0	3.8	1.9	1.8
F.F	0	0	1.9	3.7	3.7	0	3.7	3.4	3.4	0	3.4	0	3.4	3.4	3.4	0	4.0	3.8	1.9	1.8

REF. NO.	IC8001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	1.8	1.6	0	2.6	2.8	3.6	0	0	0	0	0	3.1	3.1	3.0	1.8	1.8	3.4	1.6	3.7	1.3
PLAY	1.8	1.6	0	2.6	2.8	3.5	0	0.2	0.1	0.1	0	3.1	3.2	3.0	1.8	1.8	3.4	0	3.7	1.3
F.F	1.8	1.6	0	2.6	2.8	3.3	0	0	0	0	0	3.1	3.2	3.0	3.3	3.3	3.4	0	3.7	1.3

REF. NO.	IC8001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	3.7	0	3.7	0	3.7	0	3.7	0	0.2	3.5	0	3.0	3.4	1.2	3.4	3.4	0	0	1.9	1.9
PLAY	3.7	0	1.7	0	3.7	3.7	0	0	0.2	3.5	0	1.6	1.7	1.1	1.7	1.7	0	0	1.9	1.9
F.F	3.7	0	1.8	0	3.7	3.7	0.1	0	0.2	3.5	0	1.6	1.7	1.1	1.7	1.8	0.2	0	1.9	1.9

REF. NO.	IC8001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	1.7	2.0	3.7	0	0	0	1.8	1.8	0	3.4	1.8	3.8	0.1	3.5	3.8	0	3.0	3.3	2.4	2.0
PLAY	1.7	2.0	3.7	0	1.0	0	1.8	1.8	0	3.4	1.8	3.8	1.6	1.6	3.8	0	3.0	3.3	2.4	2.8
F.F	1.7	2.0	3.7	0	0.9	0	1.8	1.8	0	3.4	1.8	3.8	1.4	1.6	3.8	0	3.0	3.3	2.4	2.0

REF. NO.	IC8001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	0	0	0	0	3.4	3.4	3.4	3.4	3.7	3.7	0	0	2.6	1.0	1.0	0.1	3.8	0	0	0
PLAY	0	0	0	0	3.4	3.4	3.4	3.4	3.7	3.7	0	0	3.7	1.0	0	0.1	3.8	0	0	0
F.F	0	0	0	0	3.4	3.4	3.4	3.4	3.7	3.7	0	0	2.6	1.0	0.7	0.1	3.8	0	0	0

REF. NO.	IC8001																			
MODE	121	122	123	124	125	126	127	128												
STOP	0	0	0	3.7	0	0	3.7	0												
PLAY	0	0	0	0	0	0	3.7	0												
F.F	0	0	0	3.7	0	0	3.7	0												

REF. NO.	IC8002								IC8005							
MODE	1	2	3	4	5	6	7	8								
STOP	0	0.8	0.5	0	1.8	3.4	1.8	3.6								
PLAY	0	0.8	0.5	0	1.8	0	1.8	3.6								
F.F	0	0.8	0.5	0	1.8	3.4	3.3	3.6								

REF. NO.	IC8003								IC8004							
MODE	1	2	3	4	5	6	7	8								
STOP	3.4	3.4	1.8	3.7	3.4	0	1.4	1.4	0	0	0	0.1	0	0	0.1	0
PLAY	3.4	3.4	1.8	3.7	3.4	0	1.4	1.4	0	0	0	0.1	0	0	0	0
F.F	3.4	3.4	3.3	3.7	3.4	0	1.4	1.4	0	0	0	0.1	0	0	0.1	0

REF. NO.	IC8004								IC8005							
MODE	1	2	3						1	2	3	4	5	6	7	8
STOP	0	6.9	3.8						0	6.9	4.9	0	0	3.0	0	0
PLAY	0	6.9	3.8						0	6.9	4.9	0	0	3.0	0	0
F.F	0	6.9	3.8						0	6.9	4.9	0	0	3.0	0	0

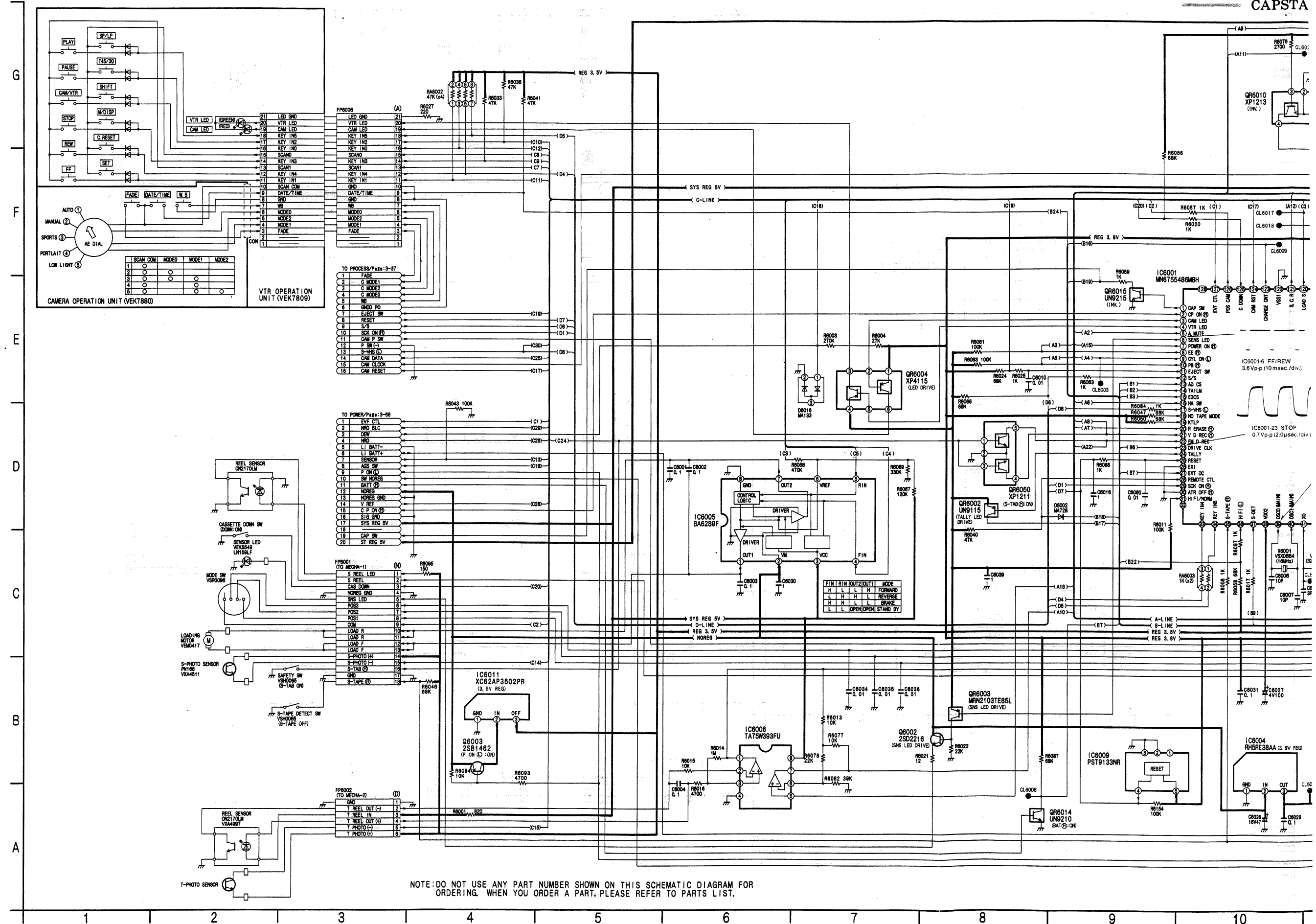
REF. NO.	IC8006								IC8007							
MODE	1	2	3	4	5	6	7	8								
STOP	3.4	0.7	0.7	0	3.2	2.2	3.2	4.9								
PLAY	1.7	0.7	0.7	0	3.2	2.2	3.2	4.9								
F.F	1.7	0.7	0.7	0	3.2	2.2	3.2	4.9								

REF. NO.	IC8008								IC8009							
MODE	1	2	3	4	5				1	2	3	4	5			
STOP	0	0	2.5	3.4	3.5				0	0	0	3.7	3.7			
PLAY	0	0	2.5	3.4	3.5				0	0	0	3.7	3.7			
F.F	0	0	2.5	3.4	3.5				0	0	0	3.7	3.7			

REF. NO.	IC8010												IC8011		
MODE	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
STOP	2.2	3.5	3.4	3.4	0	0	0	3.4	3.4	3.2	3.1	0.7	0	6.6	3.5
PLAY	2.2	3.5	3.4	3.4	0	0.1	0	3.4	3.4	0	3.2	0	0	6.6	3.5
F.F	2.2	3.5	3.4	3.4	0	0.1	0	3.4	3.4	3.3	3.1	0.9	0	6.6	3.5

3-20. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM

CAPSTA

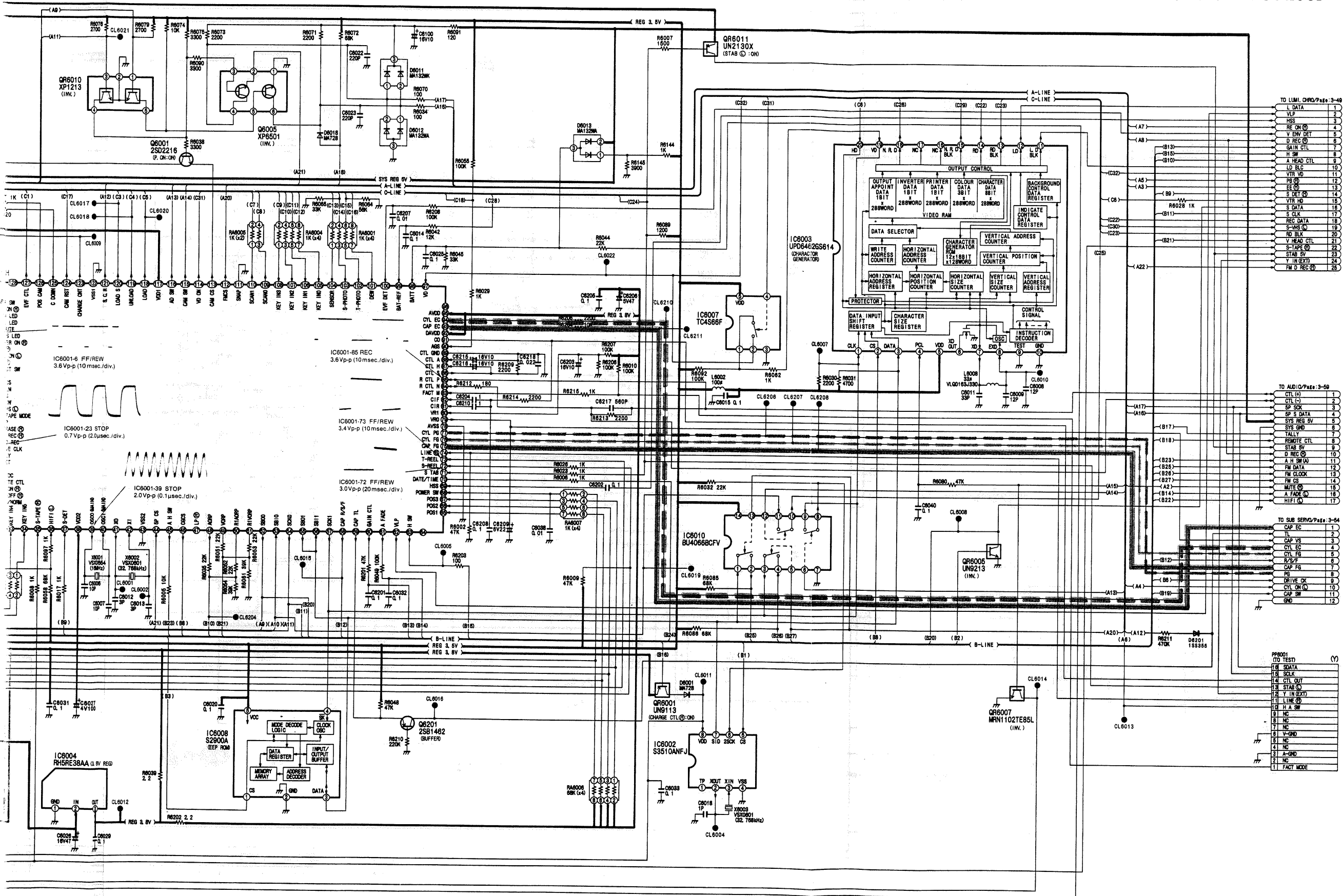


CAPSTAN SERVO SPEED LOOP

CAPSTAN SERVO PHASE LOOP

CYLINDER SERVO SPEED LOOP

CYLINDER SERVO PHASE LOOP



TO LUMI. CHOP/Para: 3-48	
1	L DATA
2	VLP
3	VSS
4	RE ON (D)
5	V ENV DET
6	D REG (D)
7	SATN CTL
8	H SW
9	A HEAD CTL
10	LD BLC
11	VTR VD
12	PE (D)
13	EE (D)
14	S DET (D)
15	VTR HD
16	S DATA
17	S CLK
18	REC DATA
19	S-VHS (D)
20	RD BLC
21	V HEAD CTL
22	S-TAPE (D)
23	STAB SV
24	V IN EXT
25	FM D REG (D)

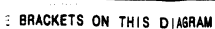
TO AUDIO/Para: 3-58	
1	CTL (H)
2	CTL (C)
3	SP CLK
4	SP S DATA
5	SYS REG SV
6	SYS GND
7	TALLY
8	REMOTE CTL
9	STAB SV
10	D REG (D)
11	A IN SW (A)
12	FM DATA
13	FM CLOCK
14	FM CS
15	MUTE (D)
16	A FAGE (D)
17	HIFI (C)

TO SUB SERVO/Para: 3-54	
1	CAP EC
2	TL
3	CAP VS
4	CTL EC
5	CYL FG
6	R/S/F
7	CAP FG
8	PS
9	DRIVE CK
10	CYL ON (D)
11	CAP SW
12	GND

PP8001 (TO TEST)	
1	SDATA
2	CTL OUT
3	STAB (D)
4	Y IN EXT
5	H A SW
6	NC
7	NC
8	V-GND
9	NC
10	NC
11	A-GND
12	NC
13	FACT MODE

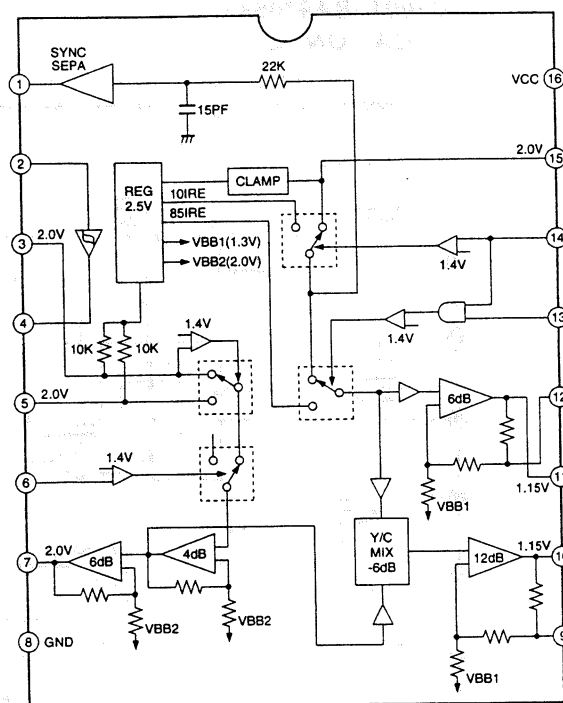
VIDEO MAIN SIGNAL PATH IN REC MODE ~~VIDEO MAIN~~ VIDEO MAIN

AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

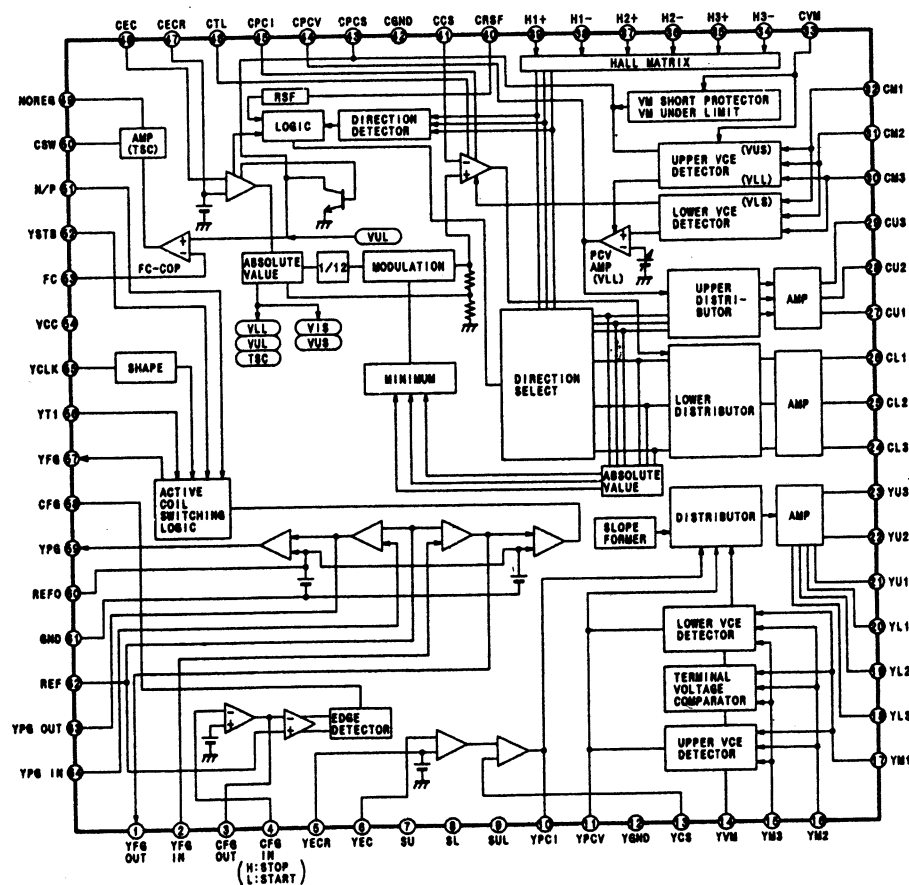


IC BLOCK

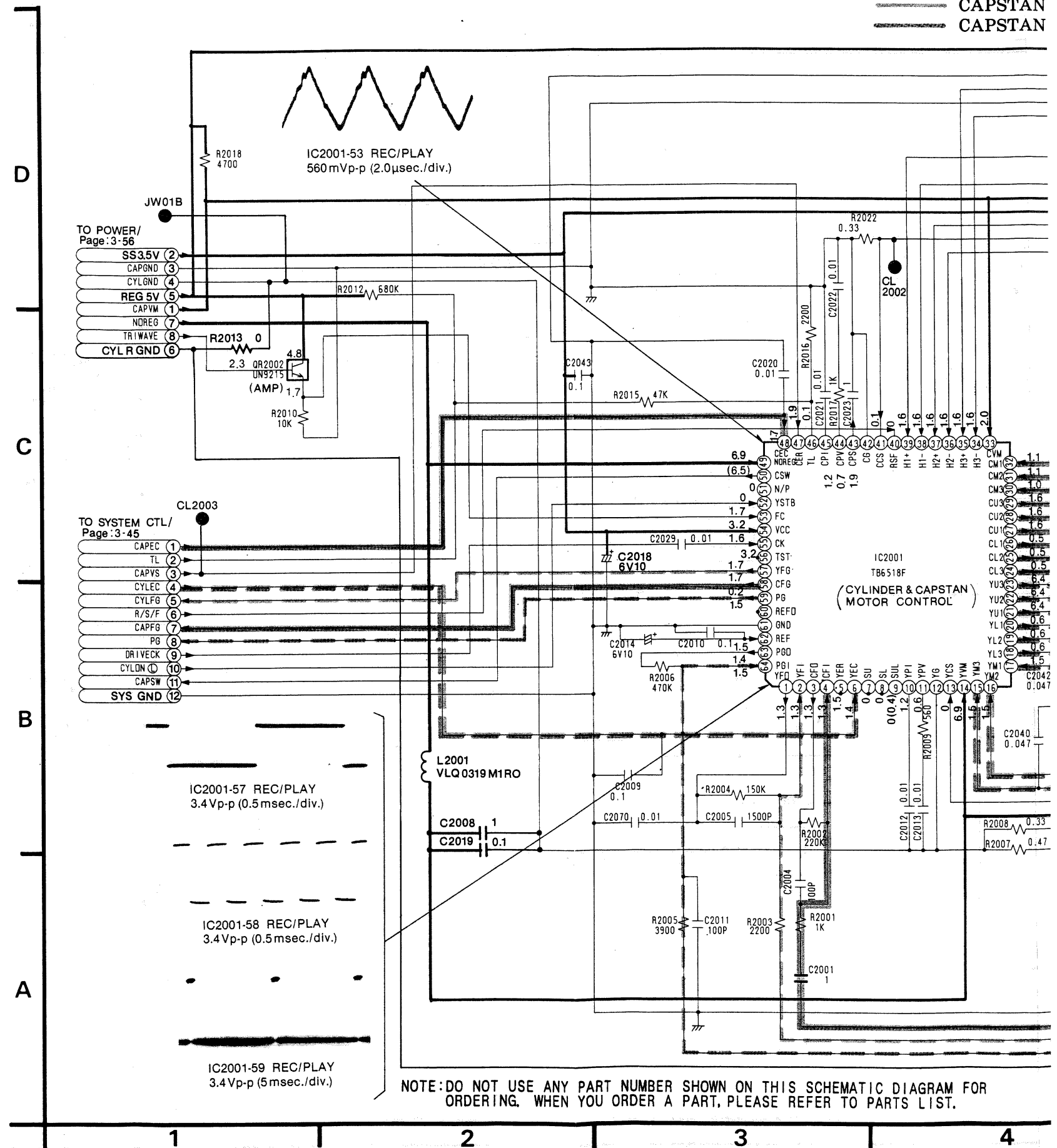
IC3004 (MM1024BF)
(LOCATION: B-4)



IC2001 (TB6518F)
(LOCATION: C-4)

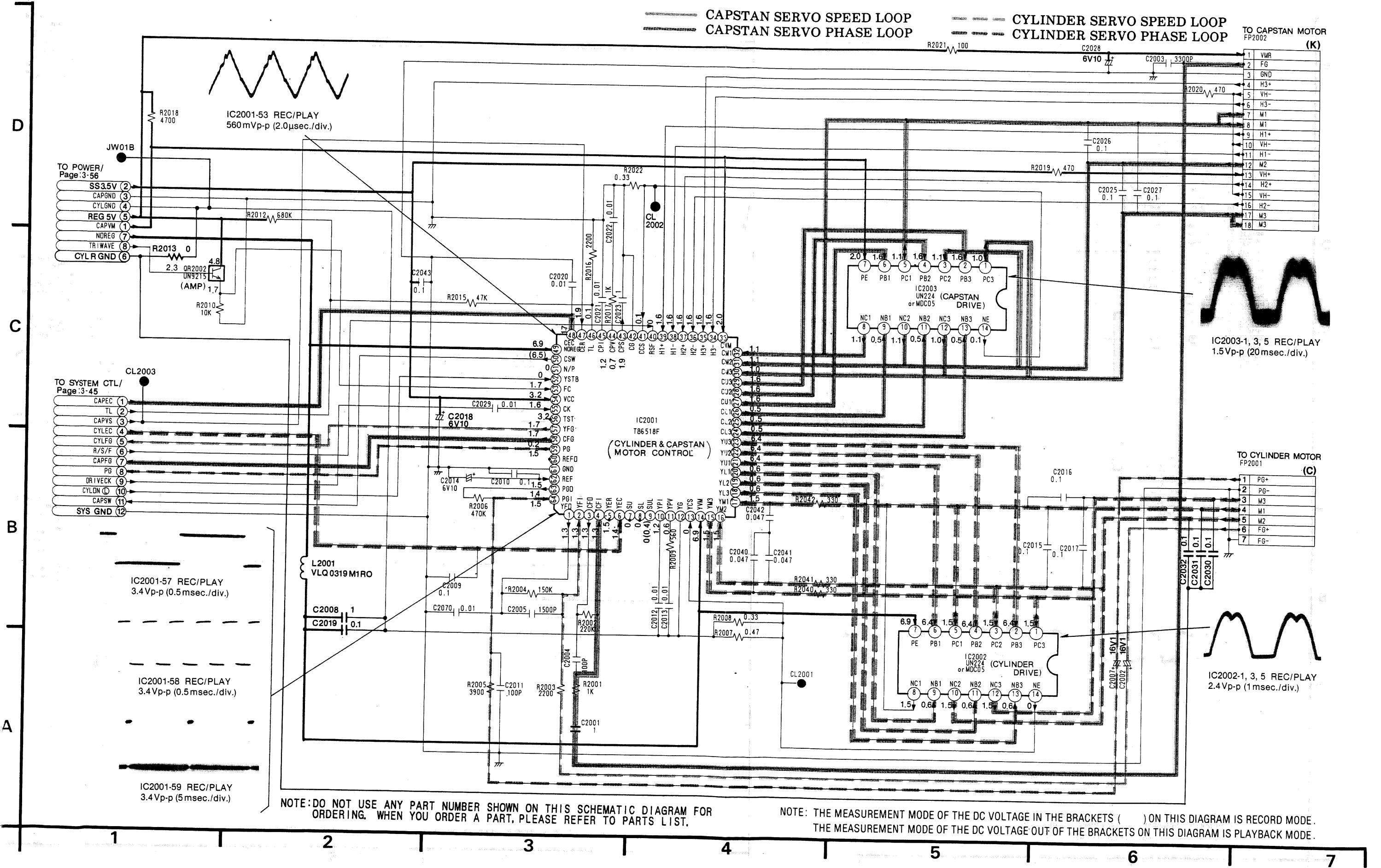


3-22. SUB SERVO SCHEMATIC DIAGRAM

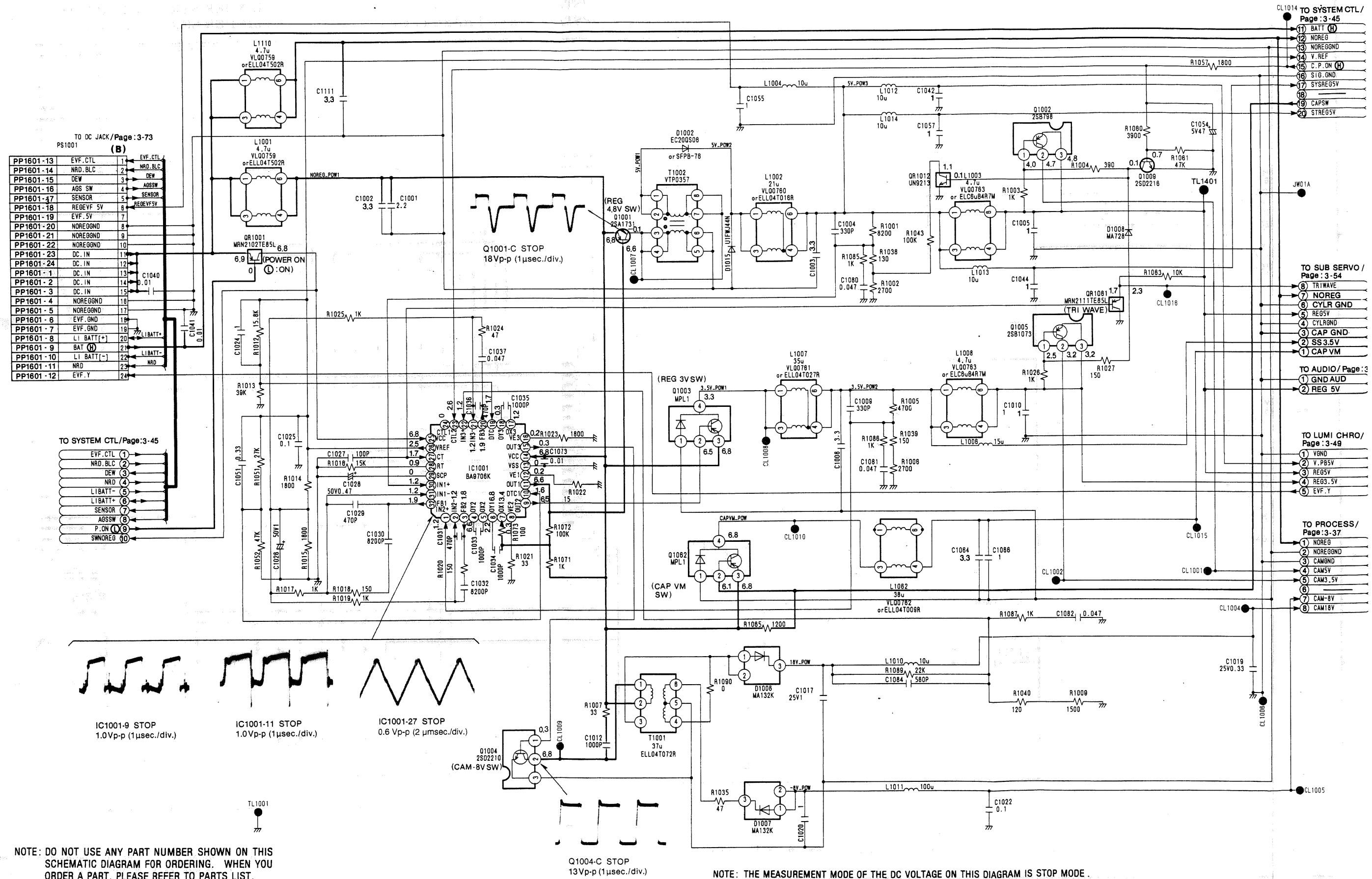


3-22. SUB SERVO SCHEMATIC DIAGRAM

SUB SERVO Section



3-23. POWER SCHEMATIC DIAGRAM



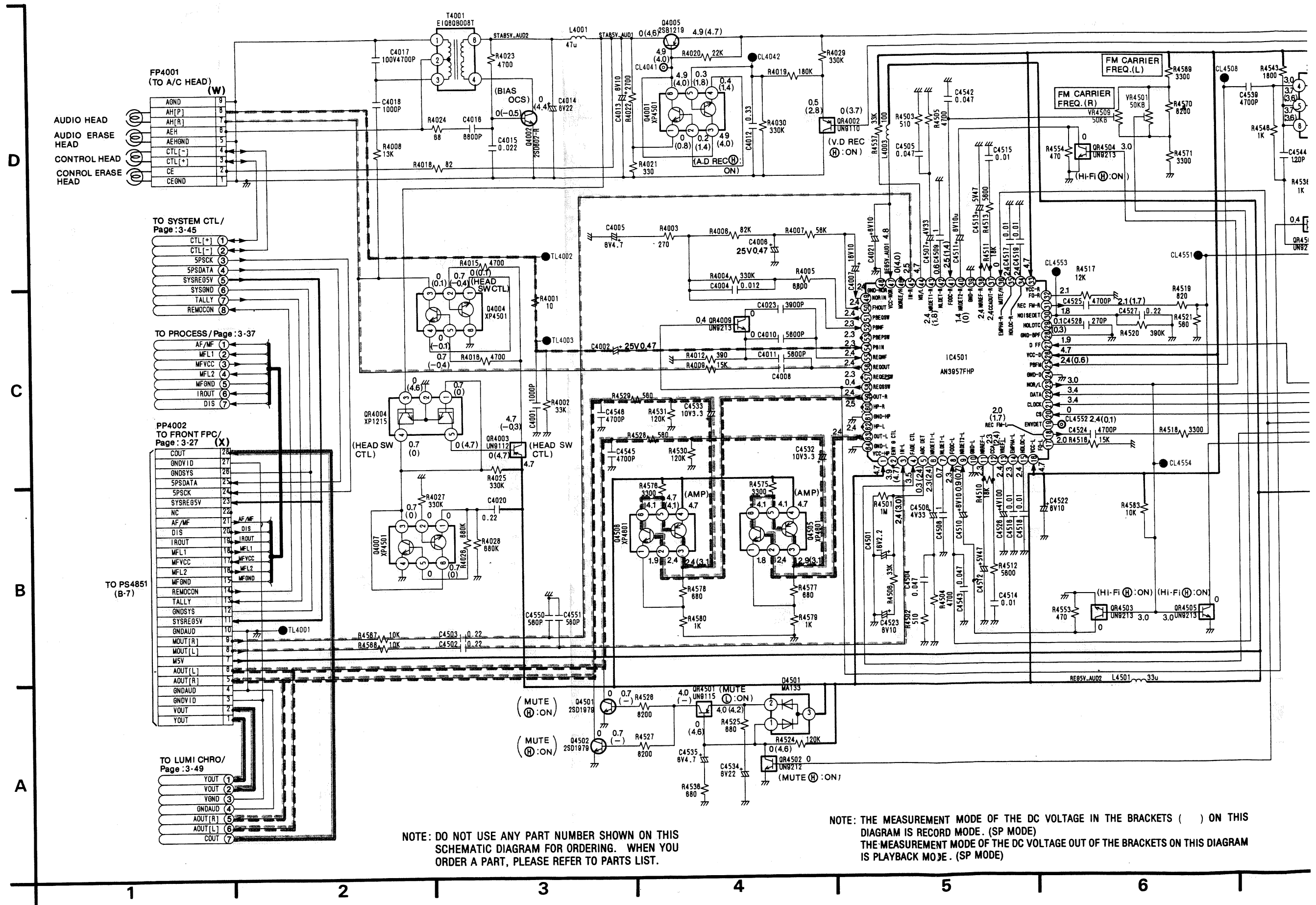
3-24. AUDIO SCHEMATIC DIAGRAM

VIDEO MAIN SIGNAL PATH IN REC MODE

VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

AUDIO MAIN SIGNAL F

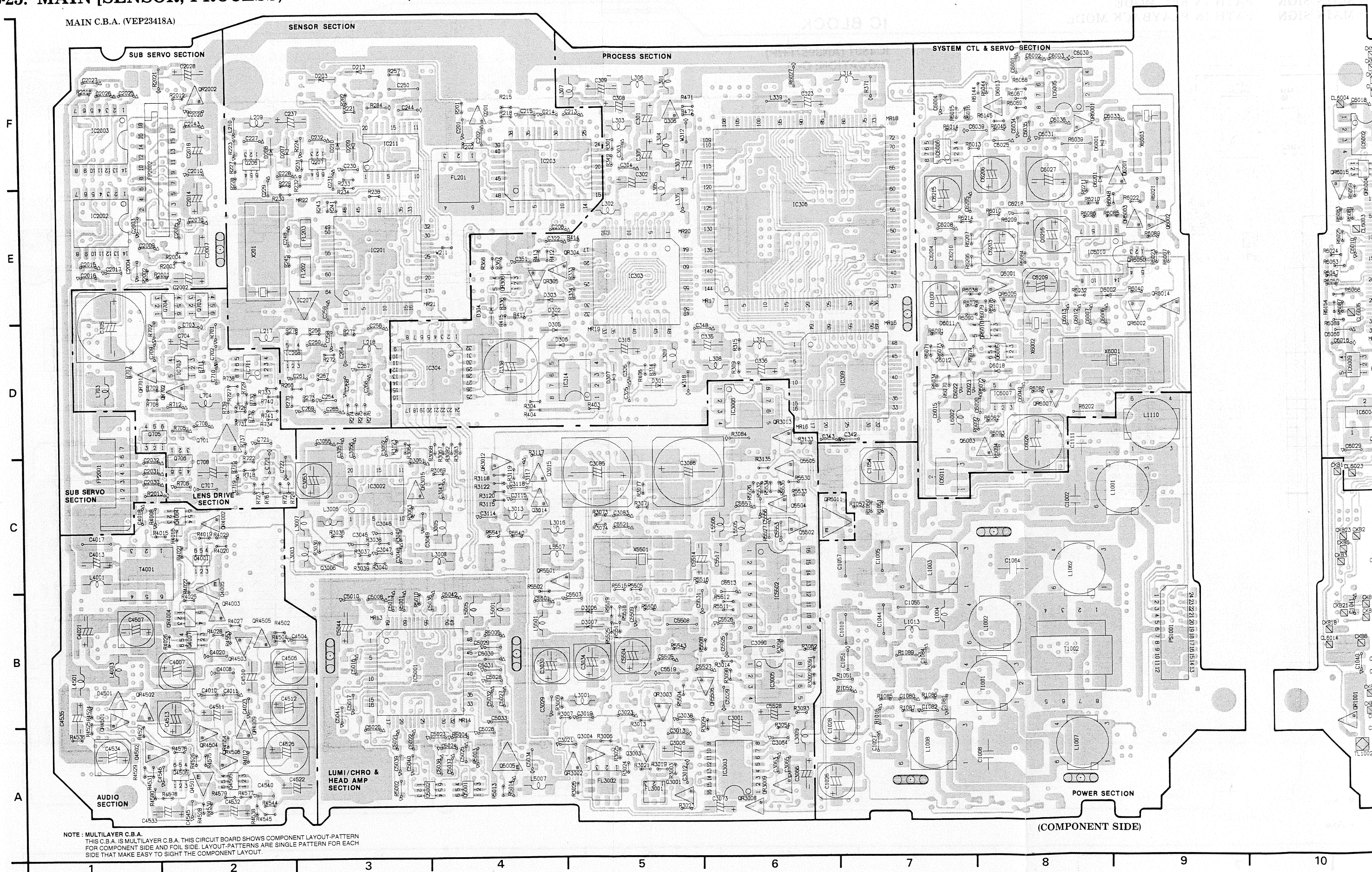
AUDIO MAIN SIGNAL F



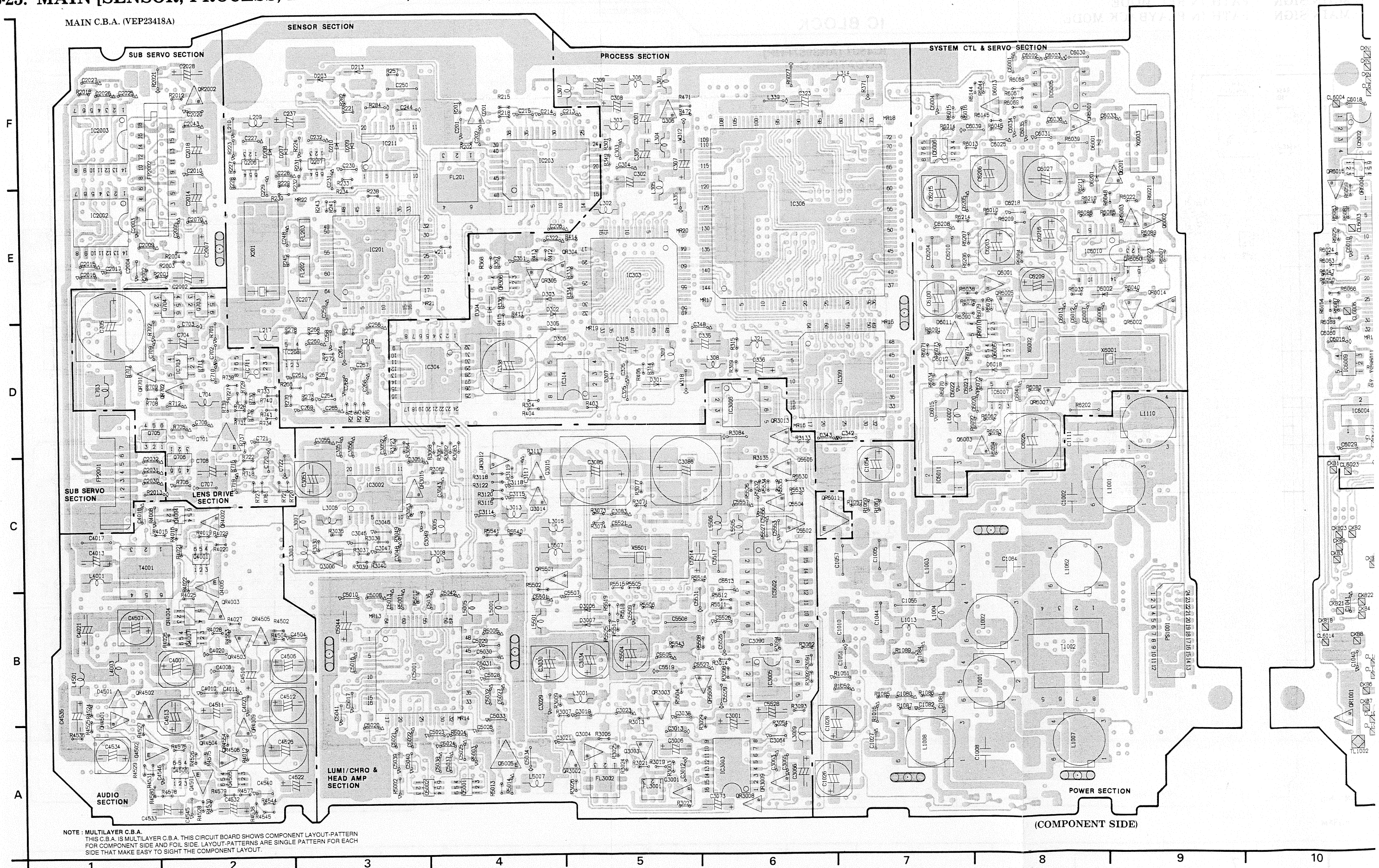
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

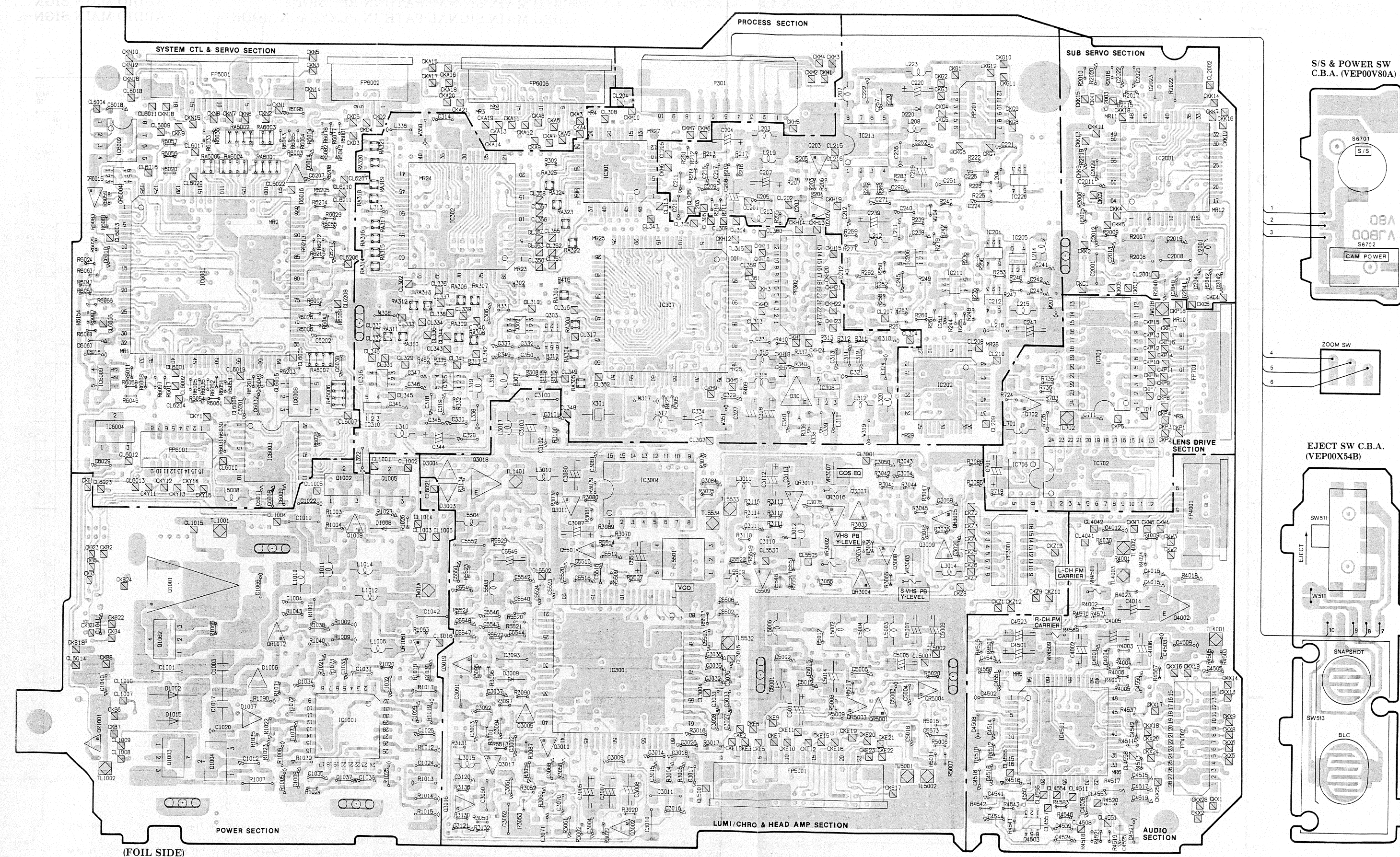
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS () ON THIS DIAGRAM IS RECORD MODE. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE. (SP MODE)

3-25. MAIN [SENSOR, PROCESS, LENS DRIVE, POWER, SYSTEM CONTROL & SERVO, LUMINANCE/CHROMINANCE & HEAD AMP, AUDIO, SUB SERV



3-25. MAIN [SENSOR, PROCESS, LENS DRIVE, POWER, SYSTEM CONTROL & SERVO, LUMINANCE/CHROMINANCE & HEAD AMP, AUDIO, SUB SERV



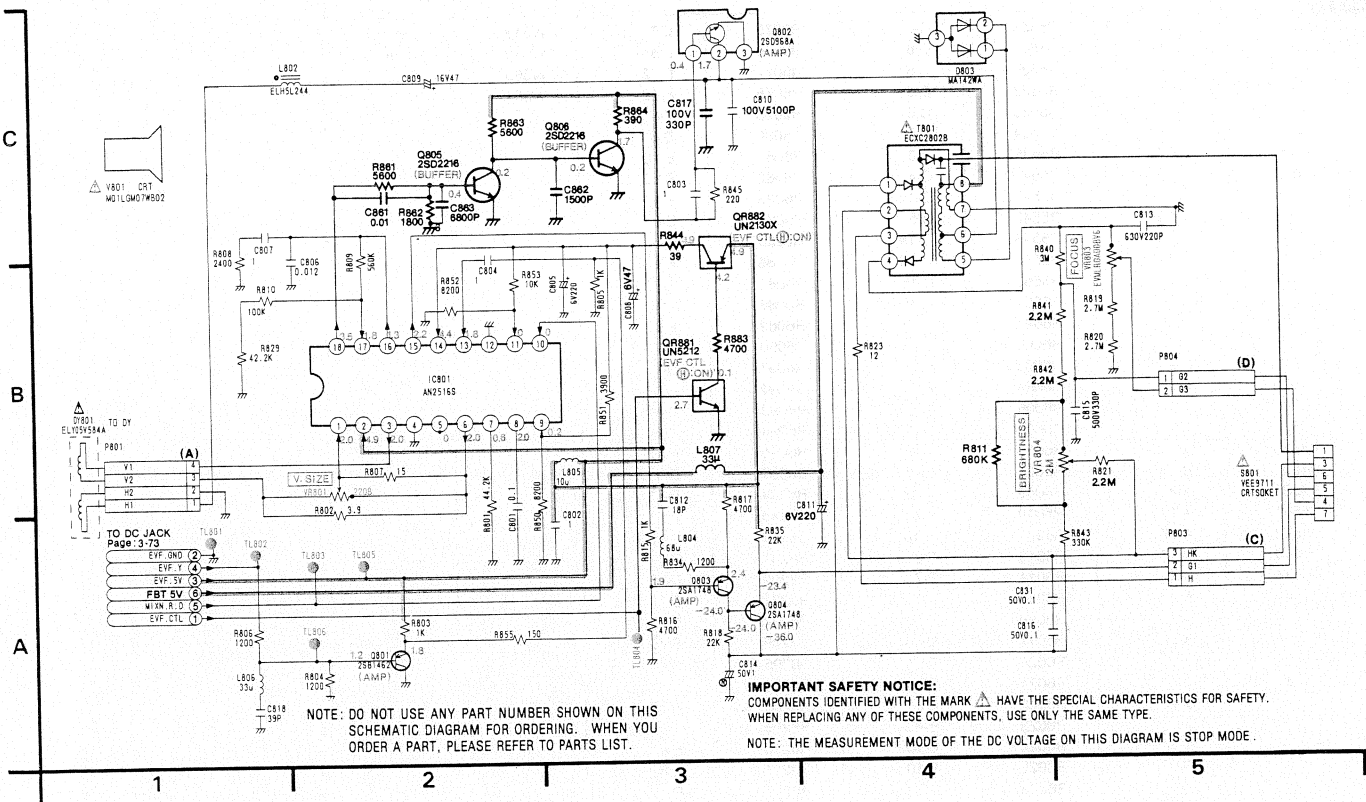


Integrated Circuit		Q3006	C-3	Diode		CL342	D-13	CL6206	E-12	L309	D-5	C212	E-16	C338	D-4	C2013	E-18	C3071	A-14	C4543
IC201	E-3	Q3007	C-16	D203	F-3	CL343	D-13	CL6207	F-12	L310	D-12	C213	F-5	C339	D-15	C2014	E-2	C3073	A-6	C4544
IC202	D-16	Q3008	C-16	D207	F-2	CL344	D-13	CL6208	E-12	L311	D-16	C214	F-4	C340	D-15	C2015	E-1	C3075	C-15	C4545
IC203	F-4	Q3009	A-16	D208	F-2	CL345	D-12	CL6210	E-12	L312	D-16	C215	F-4	C341	D-12	C2016	E-1	C3076	B-15	C4546
IC204	E-17	Q3010	C-14	D209	F-3	CL346	D-12	CL6211	E-12	L313	D-16	C216	F-15	C342	D-7	C2017	E-1	C3080	C-14	C4550
IC205	E-17	Q3011	C-14	D210	F-3	CL347	E-14	TL702	D-17	L314	F-7	C217	F-15	C343	D-6	C2018	F-2	C3081	C-14	C4551
IC206	E-16	Q3014	C-4	D212	E-16	CL348	D-14	TL1001	C-11	L315	D-15	C219	F-16	C344	D-13	C2019	E-18	C3083	C-5	C5001
IC207	E-3	Q3015	C-4	D213	F-3	CL349	D-14	TL1002	A-10	L316	D-15	C220	F-16	C345	D-13	C2020	F-2	C3084	C-15	C5002
IC208	D-2	Q3016	A-13	D220	F-16	CL350	E-13	TL1401	C-13	L317	D-14	C221	F-17	C346	D-13	C2021	F-18	C3085	C-5	C5003
IC210	E-16	Q3017	A-13	D301	D-5	CL351	E-14	TL4001	B-18	L318	D-13	C222	F-16	C347	D-13	C2022	F-18	C3086	C-5	C5004
IC211	F-3	Q3018	C-13	D302	E-4	CL352	E-14	TL4002	C-18	L319	D-13	C224	E-17	C348	D-6	C2023	F-18	C3087	C-14	C5005
IC212	E-17	Q3019	B-13	D303	E-4	CL353	E-13	TL4003	C-18	L320	D-16	C225	F-17	C349	D-13	C2025	F-1	C3090	B-6	C5006
IC213	F-16	Q4001	C-1	D304	E-4	CL354	E-13	TL5001	A-16	L321	D-6	C227	F-2	C350	D-13	C2026	F-1	C3091	B-13	C5007
IC220	F-17	Q4002	C-18	D305	D-4	CL355	E-14	TL5002	A-16	L322	D-12	C228	F-2	C351	E-4	C2027	F-1	C3092	B-13	C5008
IC301	F-14	Q4004	C-2	D306	D-4	CL356	E-13	TL5532	B-15	L335	E-5	C229	E-2	C701	C-17	C2028	F-2	C3093	B-13	C5009
IC302	E-13	Q4005	B-2	D307	D-5	CL357	E-13	TL5533	C-15	L336	F-12	C230	F-3	C702	D-2	C2029	F-17	C3094	B-13	C5010
IC303	E-5	Q4007	B-2	D1002	B-11	CL358	E-13	TL5534	C-15	L338	D-13	C231	F-3	C703	D-2	C2030	C-1	C3100	D-13	C5011
IC304	D-4	Q4501	A-2	D1006	B-11	CL359	E-15			L339	F-6	C232	F-3	C704	D-2	C2031	C-1	C3101	D-14	C5012
IC306	E-6	Q4502	A-1	D1007	B-11			Adjustment		L701	D-17	C236	F-16	C705	D-1	C2032	C-1	C3102	D-13	C5013
IC307	E-14	Q4503	A-17	D1008	C-12	CL360	E-15	VR3002	C-16	L703	D-1	C237	F-2	C706	D-2	C2040	E-18	C3103	D-13	C5014
IC308	D-16	Q4505	A-2	D1015	B-11	CL361	E-15	VR3003	C-16	L704	D-2	C238	E-16	C707	C-2	C2041	E-18	C3110	C-15	C5015
IC309	D-7	Q4506	A-2	D3003	C-13	CL362	D-14	VR3007	C-18	L1001	C-9	C239	E-16	C708	C-2	C2042	E-18	C3111	C-15	C5016
IC310	D-12	Q5001	A-4	D3004	C-13	CL701	D-18	VR4501	C-17	L1002	B-8	C240	E-16	C709	D-1	C2043	F-2	C3112	C-15	C5017
IC314	D-5	Q5002	A-3	D3005	B-13	CL1001	C-12	VR4509	B-17	L1003	C-7	C241	E-17	C710	D-2	C2070	E-2	C3113	C-15	C5018
IC316	D-12	Q5005	A-4	D3006	B-5	CL1002	C-13			L1004	B-7	C242	E-17	C711	D-17	C3001	A-6	C3114	C-4	C5020
IC701	D-17	Q5501	C-14	D3007	B-5	CL1003	C-12	Connector		L1006	B-12	C243	E-17	C719	C-2	C3002	A-13	C3115	C-4	C5021
IC702	D-17	Q5502	C-6	D3008	B-13	CL1005	C-12	FP701	D-18	L1007	A-8	C244	F-3	C720	C-2	C3003	B-13	C3117	C-4	C5022
IC703	D-2	Q5504	C-6	D4501	B-1	CL1006	C-13	FP2001	C-1	L1008	A-7	C245	E-16	C721	D-2	C3004	A-14	C3118	C-4	C5023
IC706	C-17	Q5505	C-6	D6001	F-8	CL1007	B-10	FP2002	F-1	L1010	C-12	C247	D-17	C722	C-2	C3005	A-14	C3120	A-13	C5024
IC711	D-2	Q5509	C-15	D8002	E-8	CL1008	A-10	FP4001	C-18	L1011	C-12	C248	E-2	C1001	B-11	C3006	A-5	C3121	A-13	C5025
IC1001	B-12	Q6001	E-8	D6011	D-7	CL1009	A-10	FP5001	A-15	L1012	C-12	C249	F-3	C1002	C-8	C3007	A-14	C4001	B-17	C5026
IC2001	F-18	Q6002	E-9	D6012	D-7	CL1010	B-10	FP6001	F-11	L1013	B-7	C251	F-16	C1003	B-11	C3008	A-14	C4002	B-17	C5027
IC2002	E-1	Q6003	C-8	D6013	F-8	CL1014	C-13	FP6002	F-12	L1014	C-12	C252	F-16	C1004	B-11	C3009	A-14	C4004	B-18	C5028
IC2003	F-1	Q6005	D-8	D6016	F-12	CL1015	C-11	FP6006	F-13	L1016	D-9	C254	D-3	C1005	C-7	C3010	A-14	C4005	B-18	C5029
IC3001	B-14	Q6201	E-9	D6018	D-8	CL1016	B-13	PP201	F-17	L1110	D-9	C256	F-16	C1008	A-8	C3011	A-14	C4006	B-18	C5030
IC3002	C-3			D6201	E-8	CL2001	E-18	PP302	E-15	L2001	E-18	C257	D-3	C1009	A-12	C3012	A-5	C4007	B-2	C5031
IC3003	A-6					CL2002	F-18	PP3001	C-17	L3001	B-5	C258	D-3	C1010	B-7	C3013	A-5	C4008	B-2	C5032
IC3004	C-14					CL2003	F-18	PP3001	C-17	L3003	C-3	C259	E-3	C1012	A-11	C3014	A-14	C4010	B-2	C5033
IC3005	B-6	QR304	E-4			CL3001	D-16	PP4002	B-18	L3005	C-4	C260	D-3	C1017	B-11	C3015	A-14	C4011	B-2	C5034
IC3006	D-6	QR305	E-4			CL3004	B-15	PP6001	D-11	L3006	C-3	C261	D-3	C1019	C-12	C3016	A-14	C4012	C-18	C5036
IC4501	B-17	QR701	D-1			CL3015	B-15	PS1001	B-9	L3007	C-3	C263	E-16	C1020	B-11	C3017	A-15	C4013	C-1	C5037
IC5001	B-3	QR702	D-2			CL4041	C-17			L3007	C-3	C263	E-16	C1020	B-11	C3017	A-15	C4013	C-1	C5037
IC5502	B-6	QR1001	A-10			CL4042	C-17			L3008	C-4	C264	D-3	C1022	C-12	C3018	A-14	C4014	C-18	C5038
IC6001	E-11	QR1012	B-12			CL4508	A-17			L3009	A-6	C265	D-3	C1024	A-13	C3019	B-5	C4015	C-18	C5039
IC6002	F-10	QR1061	B-13			CL4511	A-17			L3010	C-13	C266	D-3	C1025	B-13	C3020	C-16	C4016	C-18	C5040
IC6003	D-11	QR2002	F-2			CL4551	A-18			L3011	C-15	C267	D-3	C1026	A-6	C3021	A-4	C4017	C-1	C5041
IC6004	D-10	QR3002	A-5			CL4552	A-17			L3012	C-15	C268	D-3	C1027	A-7	C3023	B-5	C4018	C-1	C5042
IC6005	F-8	QR3003	B-5			CL4553	A-17			L3013	C-4	C269	D-3	C1028	A-6	C3026	B-15	C4020	B-1	

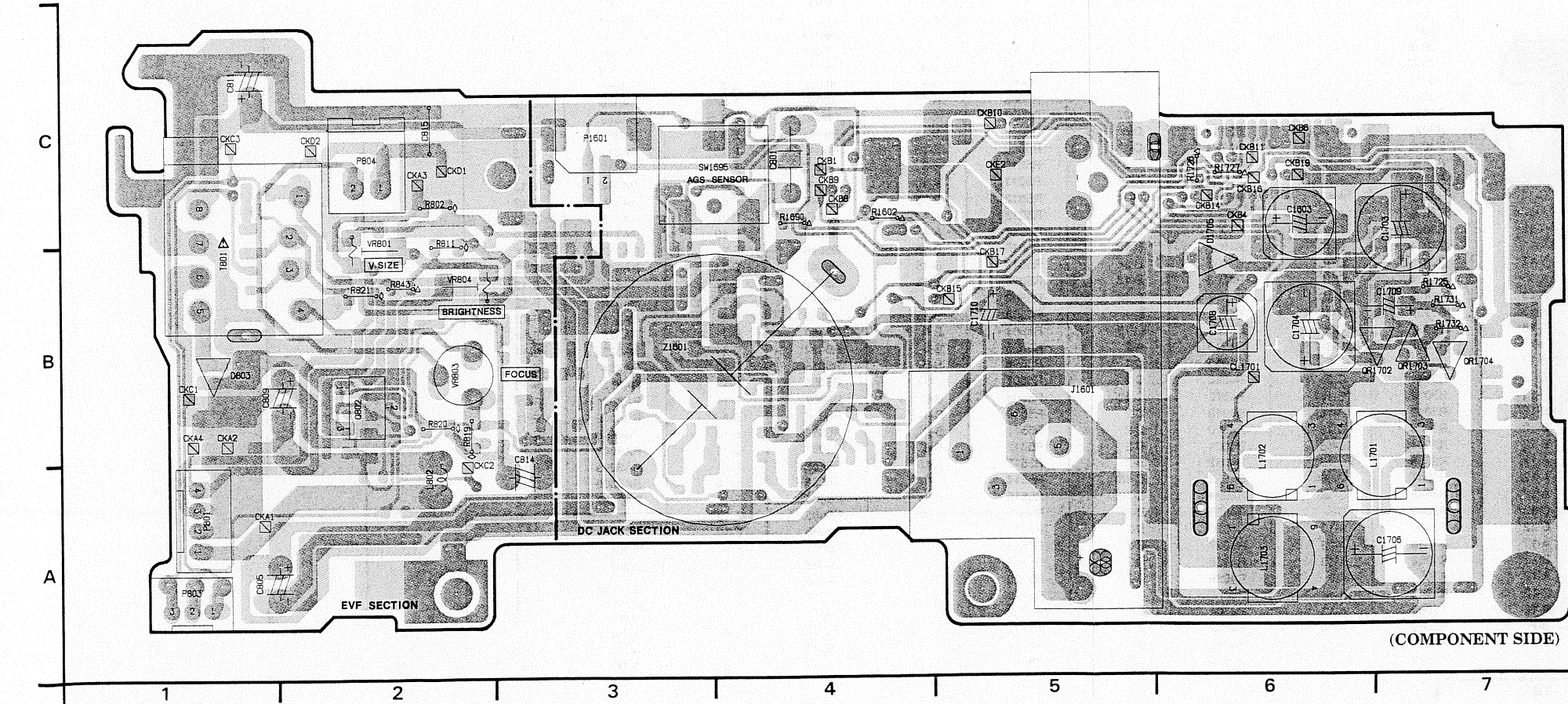
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A-14	C4543	B-17	C5548	B-13	R226	F-17	R371	F-7	R1060	C-7	R3063	C-3	R4505	B-18	R5526	C-6	R6075	E-7	W318	D-5
A-6	C4544	A-17	C5549	C-13	R227	F-2	R403	D-5	R1061	C-7	R3064	D-3	R4506	B-17	R5527	C-6	R6076	E-8	W319	D-16
C-15	C4545	A-2	C5550	C-13	R228	F-2	R404	D-4	R1063	B-13	R3065	C-16	R4510	A-17	R5530	C-6	R6077	F-12	W350	F-13
B-15	C4546	A-2	C5552	C-13	R229	E-2	R406	D-5	R1065	B-11	R3066	C-16	R4511	B-18	R5532	C-6	R6078	F-12	W351	D-15
C-14	C4550	B-18	C5553	C-6	R230	E-2	R409	D-15	R1071	B-12	R3067	D-4	R4512	A-17	R5533	C-6	R6079	E-8		
C-14	C4551	B-17	C5556	C-6	R231	F-3	R410	D-15	R1072	B-12	R3068	D-4	R4513	A-18	R5534	C-6	R6080	D-8		
C-5	C5001	B-15	C5557	C-6	R232	F-3	R411	D-4	R1073	B-12	R3069	C-4	R4516	A-17	R5535	C-6	R6081	E-10		
C-15	C5002	B-15	C5573	B-16	R233	F-3	R412	E-4	R1085	B-7	R3070	C-14	R4517	A-18	R5540	C-4	R6082	F-12		
C-5	C5003	B-16	C6001	F-8	R234	E-3	R413	E-4	R1086	B-7	R3071	C-5	R4518	A-17	R5541	C-4	R6083	E-10		
C-5	C5004	B-16	C6002	F-8	R235	E-17	R414	E-5	R1087	B-7	R3073	C-5	R4519	A-18	R5543	B-5	R6084	E-8		
C-14	C5005	B-16	C6003	F-8	R236	E-17	R415	D-4	R1089	B-7	R3074	C-5	R4520	A-18	R5548	C-15	R6085	E-9		
B-6	C5006	B-16	C6004	F-7	R238	E-3	R416	E-14	R1090	B-11	R3075	C-15	R4521	A-17	R5549	C-15	R6086	E-8		
B-13	C5007	B-16	C6006	D-8	R239	E-16	R425	D-14	R2001	E-1	R3076	D-15	R4524	B-1	R5550	C-15	R6087	E-10		
B-13	C5008	B-3	C6007	D-8	R240	E-16	R452	D-13	R2002	E-1	R3077	C-5	R4525	A-1	R5551	C-15	R6088	D-10		
B-13	C5009	B-16	C6008	C-12	R241	E-3	R471	F-5	R2003	E-2	R3078	C-14	R4526	A-2	R6001	F-12	R6089	E-9		
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D-14	C5012	B-15	C6011	C-11	R244	E-16	R702	D-1	R2006	E-17	R3081	C-14	R4529	A-1	R6004	F-12	R6092	D-8		
D-13	C5013	B-3	C6012	D-8	R245	E-2	R703	D-17	R2007	E-18	R3082	D-4	R4530	A-2	R6005	D-11	R6093	D-8		
D-13	C5014	B-16	C6013	D-8	R246	E-17	R705	D-2	R2008	E-18	R3083	D-4	R4531	A-1	R6006	D-12	R6094	C-8		
C-15	C5015	B-15	C6014	F-12	R247	E-17	R706	C-2	R2009	E-18	R3084	D-6	R4536	A-1	R6007	E-9	R6095	F-12		
C-15	C5016	B-3	C6015	D-7	R248	E-17	R707	D-1	R2010	F-17	R3085	C-17	R4537	B-18	R6008	D-11	R6097	D-11		
C-15	C5017	B-3	C6016	D-10	R249	E-16	R708	D-1	R2012	F-2	R3086	D-17	R4538	A-2	R6009	E-12	R6144	F-8		
C-15	C5018	B-16	C6018	F-10	R250	E-16	R709	D-1	R2013	C-1	R3087	A-13	R4541	A-17	R6010	E-8	R6145	F-8		
C-4	C5020	A-3	C6020	D-8	R251	E-16	R711	D-2	R2015	F-18	R3090	B-13	R4542	A-17	R6011	D-10	R6154	E-10		
C-4	C5021	A-3	C6022	D-7	R252	E-16	R712	D-2	R2016	F-18	R3091	B-6	R4543	A-17	R6013	F-8	R6201	D-11		
C-4	C5022	A-3	C6023	D-8	R253	E-17	R716	C-2	R2017	F-18	R3092	B-6	R4544	A-2	R6014	F-7	R6202	D-8		
C-4	C5023	A-4	C6025	F-8	R255	E-15	R718	C-2	R2018	F-15	R3093	B-6	R4545	A-2	R6015	F-7	R6203	D-12		
A-13	C5024	A-4	C6026	D-8	R256	E-17	R719	C-17	R2019	F-17	R3094	B-6	R4546	A-17	R6016	F-7	R6204	E-12		
A-13	C5025	A-4	C6027	E-8	R257	F-3	R720	C-2	R2020	F-17	R3095	B-13	R4553	B-2	R6017	D-11	R6205	E-12		
B-17	C5026	A-4	C6029	C-10	R258	E-16	R721	C-2	R2021	F-1	R3096	B-13	R4554	A-2	R6020	F-11	R6206	E-7		
B-17	C5027	B-4	C6030	F-8	R259	E-16	R722	C-2	R2022	F-18	R3097	B-13	R4567	B-18	R6021	E-9	R6207	E-7		
B-18	C5028	B-4	C6031	F-8	R260	E-16	R723	C-2	R2040	E-18	R3098	B-6	R4568	B-17	R6022	E-9	R6208	F-12		
B-18	C5029	B-4	C6032	D-11	R261	E-16	R724	D-17	R2041	E-18	R3100	D-14	R4569	B-17	R6023	E-9	R6209	E-8		
B-18	C5030	B-4	C6033	F-9	R262	E-16	R726	D-17	R2042	E-18	R3110	C-15	R4570	B-17	R6024	E-10	R6210	E-8		
B-2	C5031	B-4	C6034	F-8	R265	E-16	R727	D-2	R3001	B-13	R3111	C-15	R4571	B-17	R6025	E-10	R6211	E-8		
B-2	C5032	B-4	C6035	F-8	R266	D-2	R728	D-2	R3002	A-14	R3112	C-15	R4575	A-2	R6026	E-12	R6212	E-12		
B-2	C5033	A-4	C6036	F-8	R267	D-3	R729	D-2	R3003	A-5	R3113	C-15	R4576	A-2	R6027	F-6	R6213	E-12		
B-2	C5034	A-4	C6038	D-12	R268	D-3	R730	D-2	R3004	A-14	R3114	C-15	R4577	A-2	R6028	D-12	R6214	E-7		
C-18	C5036	B-4	C6039	F-8	R269	F-16	R731	D-2	R3005	A-14	R3115	C-4	R4578	A-2	R6029	E-12	R6215	E-12		
C-1	C5037	A-4	C6040	D-8	R270	D-2	R732	D-2	R3006	A-5	R3116	C-15	R4579	A-2	R6030	D-11				
C-18	C5038	A-4	C6060	D-10	R271	D-3	R733	D-2	R3007	B-4	R3117	C-4	R4580	A-1	R6031	D-11	Resistor Array			
C-18	C5039	A-3	C6100	E-7	R272	D-3	R734	D-2	R3009	B-4	R3118	C-4	R4583	A-17	R6032	E-8	RA301	E-14		
C-18	C5040	A-3	C6201	D-11	R273	D-3	R735	D-17	R3013	A-5	R3119	C-4	R5001	B-3	R6033	F-11	RA303	D-14		
C-1	C5041	B-3	C6202	D-12	R274	D-3	R736	D-17	R3014	B-6	R3120	C-4	R5002	A-3	R6034	D-7	RA304	D-14		
C-1	C5042	B-4	C6203	E-8	R275	D-3	R737	D-2	R3016	B-15	R3122	C-4	R5003	A-4	R6035	D-11	RA305	D-14		
B-2	C5044	B-3	C6204	E-7	R276	D-3	R738	D-2	R3017	B-15	R3123	D-3	R5004	A-4	R6036	F-11	RA306	E-13		
B-1	C5501	B-4	C6205	E-7	R277	E-16	R739	D-2	R3019	A-5	R3130	A-13	R5005	B-4	R6038	E-8	RA307	E-13		
B-2	C5502	B-15	C6206	E-8	R278	D-2	R740	D-2	R3020	A-14	R3131	A-13	R5006	B-16	R6039	F-8	RA308	D-13		
B-17	C5503	B-15	C6207	F-12	R279	E-16	R741	D-2	R3021	A-5	R3132	A-13	R5007	A-16	R6040	E-9	RA309	D-13		
B-17	C5504	B-5	C6208	E-7	R281	F-14	R761	C-2	R3022	A-14	R3133	D-8	R5008	B-16	R6041	D-12	RA310	D-12		
B-18	C5505	B-5	C6209	E-8	R282	F-3	R1001	B-12	R3023	A-5	R3134	C-13	R5009	B-16	R6042	F-12	RA311	D-12		
B-2	C5506	C-15	C6210	E-7	R283	F-16	R1002	B-12	R3024	A-5	R3135	C-6	R5010	B-3	R6043	F-12	RA312	E-13		
B-18	C5507	B-5	C6215	E-7	R284	F-3	R1003	C-12	R3025	A-5	R3136	A-13	R5011	A-16	R6044	F-8	RA313	E-13		
B-2	C5508	B-5	C6216	E-8	R301	F-5	R1004	C-12	R3026	A-5	R4001	C-18	R5012	B-15	R6045	F-8	RA314	E-12		
B-1	C5509	B-5	C6217	E-12	R302	F-13	R1005	A-12	R3029	A-6	R4002	C-17	R5013	A-4	R6046	D-10	RA315	E-12		
B-17	C5511	C-14	C6218	E-8	R304	D-4	R1006	A-12	R3030	C-3	R4003	B-18	R5014	A-4	R6047	E-10	RA316	E-12		
B-18	C5512	C-14			R305	D-14	R1007	A-11	R3031	C-16	R4004	B-18	R5016	B-16	R6048	E-9	RA317	E-12		
B-2	C5513	B-6	Resistor		R306	D-14	R1009	B-12	R3033	C-16	R4005	B-18	R5017	B-16	R6049	D-11	RA318	E-12		
B-2	C5514	C-5	R201	F-4	R307	D-13	R1012	A-13	R3034	C-16	R4006	B-18	R5020	B-16	R6050	E-10	RA319	E-12		
B-2	C5515	C-14	R202	F-4	R308	D-13	R1013	A-13	R3035	C-16	R4007	B-18	R5022	B-4	R6051	D-11	RA320	F-12		
B-2	C5516	C-14	R203	F-15	R309	D-6	R1014	A-13	R3036	C-3	R4008	C-1	R5024	B-15	R6052	D-11	RA321	F-12		
B-17	C5517	C-6	R204	E-15	R310	D-14	R1015	A-13	R3037	C-3	R4009	C-18	R5026	B-5	R6053	D-11	RA322	E-14		
A-18	C5518	C-14	R205	F-15	R311	D-16	R1016	A-7	R3038	C-3	R4012	A-2	R5028	B-5	R6054	D-11	RA323	E-14		
A-17	C5519	B-5	R206	F-15	R312	D-16	R1017	B-13	R3039	C-3	R4015	C-1	R5030	B-5	R6055	E-12	RA324	E-14		
A-18	C5520	C-14	R207	F-15	R313	D-16	R1018	B-13	R3040	C-3	R4016	C-2	R5032	C-14	R6056	F-11	RA325	F-13		
A-17	C5521	C-5	R209	F-16	R314	D-5	R1019	B-13	R3041	C-16	R4018	C-18	R5034	B-6	R6057	F-11	RA6001	F-11		
A-18	C5522	C-15	R210	E-15	R315	D-6	R1020	B-12	R3042	C-16	R4019	C-2	R5036	C-14	R6058	D-10	RA6002	F-11		
A-2	C5523	C-14	R211	E-15	R316	D-13	R1021	B-12	R3043	D-16	R4020	C-2	R5038	B-6	R6059	E-10	RA6003	F-11		
B-17	C5524	C-13	R212	F-15	R317	D-13	R1022	B-12	R3044	C-16	R4021	C-2	R5040	B-6	R6061	D-11	RA6004	F-11		
A-17	C5525	B-6	R213	F-15	R331	E-13	R1023	A-12	R3045	C-16	R4022	B-2	R5042	A-13	R6062	D-8	RA6005	F-11		
A-18	C5526	B-6	R214	F-15	R332	D-13	R1024	A-12	R3047	C-16	R4023	C-18	R5044	C-14	R6063	E-10	RA6006	D-12		
A-2	C5527	B-5	R215	F-4	R333	E-5	R1025	A-12	R3048	C-16	R4024	C-18	R5046	B-5	R6064	F-12	RA6007	D-12		
A-18	C5528	B-6	R216	F-15	R334	E-5	R1026													

3-26. E.V.F. SCHEMATIC DIAGRAM



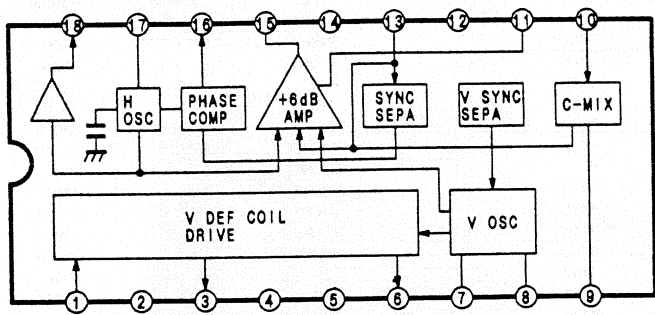
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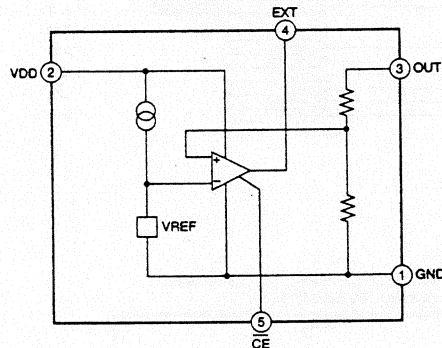
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MAIN C.B.A. Section

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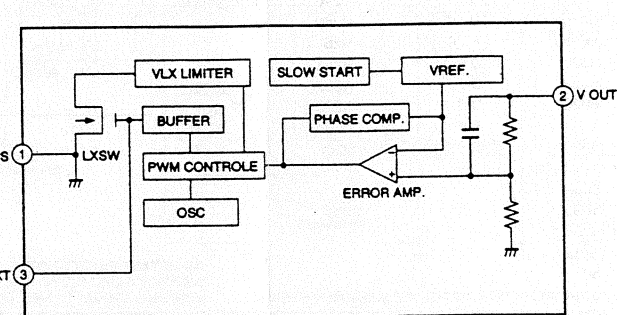
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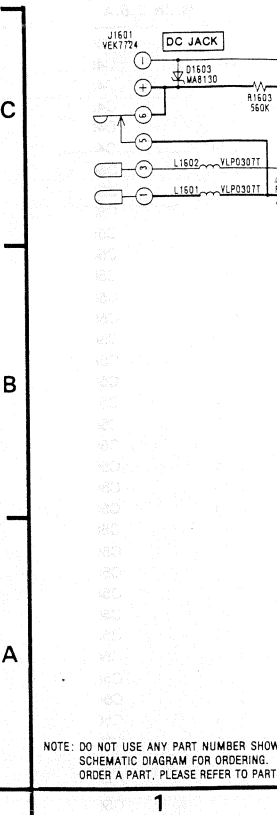
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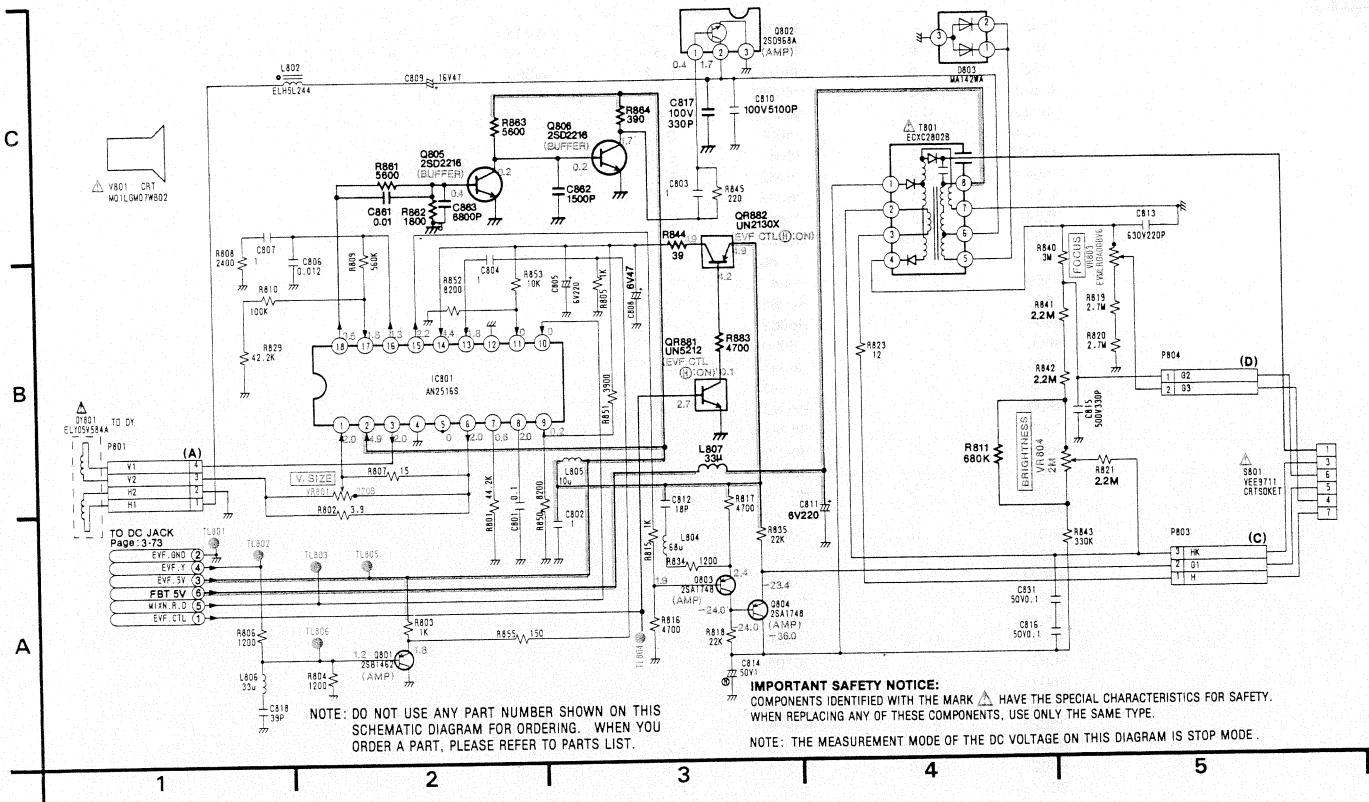
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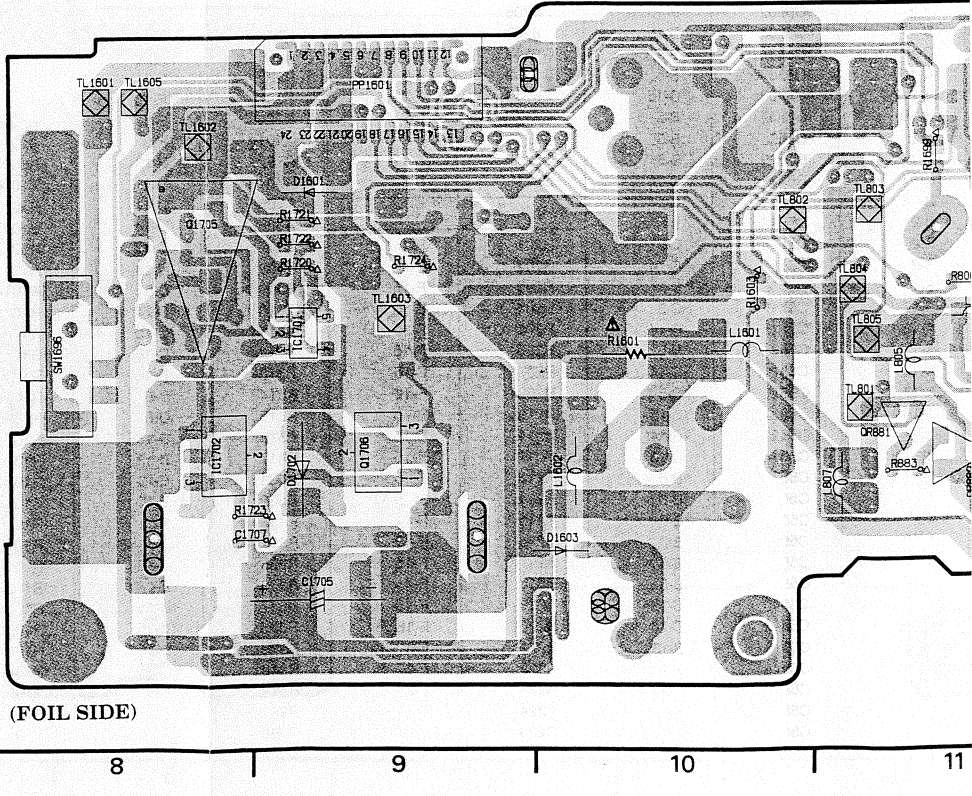
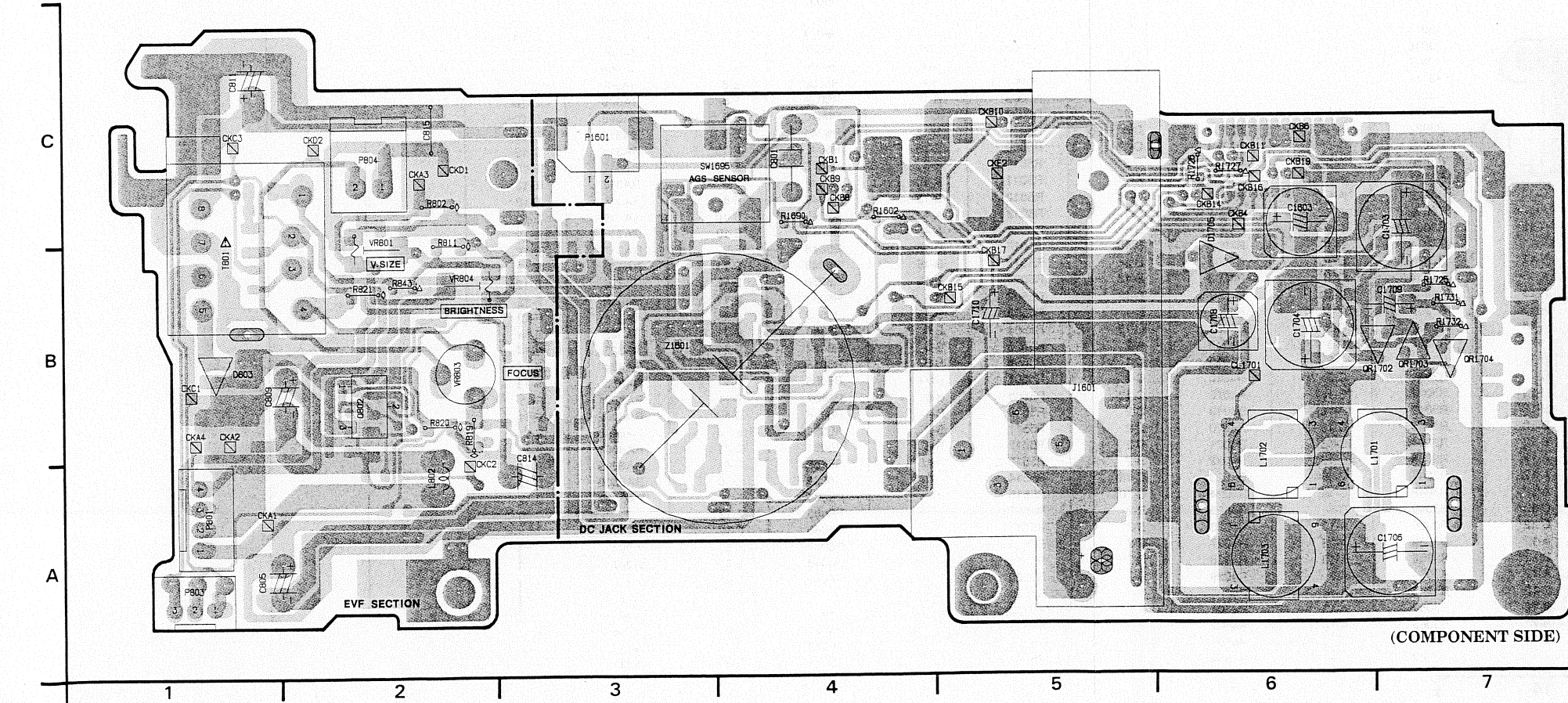
3-28. DC JACK



3-26. E.V.F. SCHEMATIC DIAGRAM

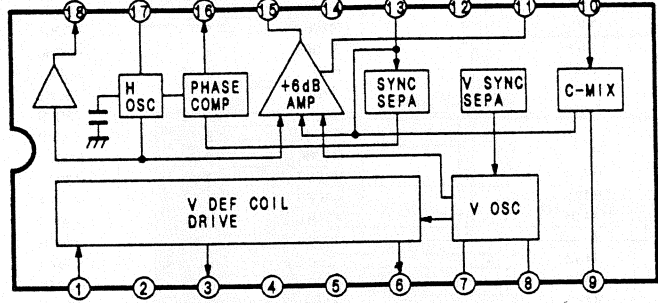


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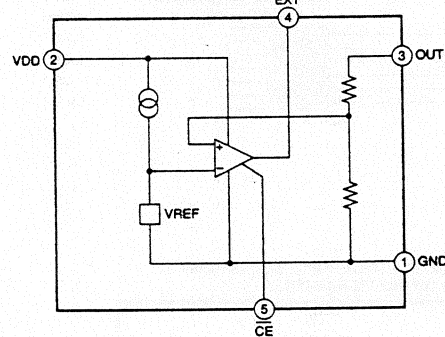


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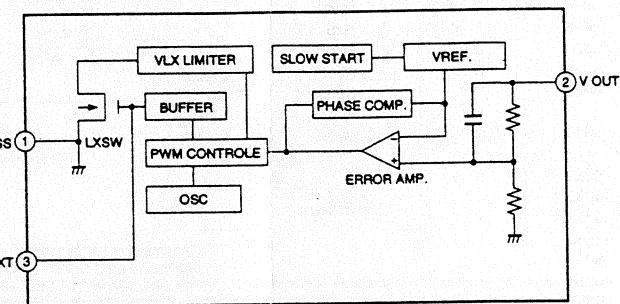
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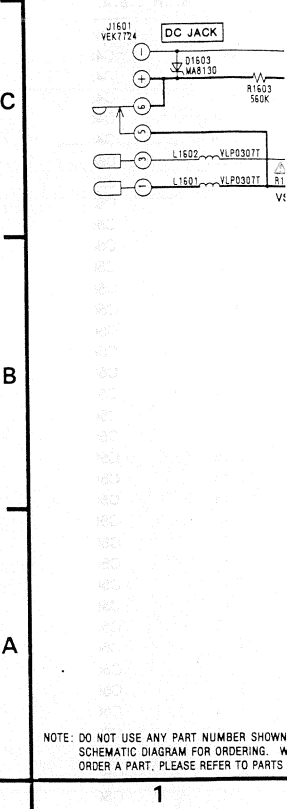
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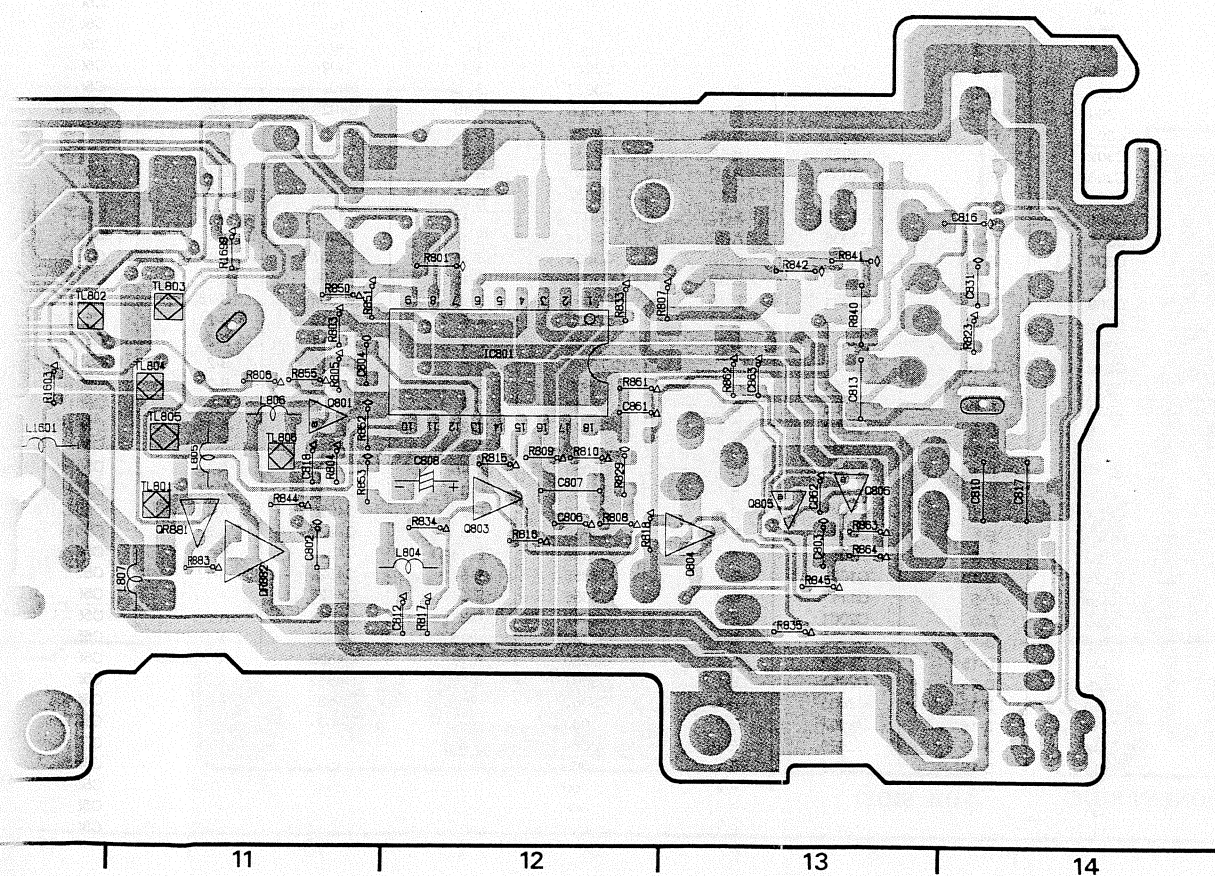
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3-28. DC JACK



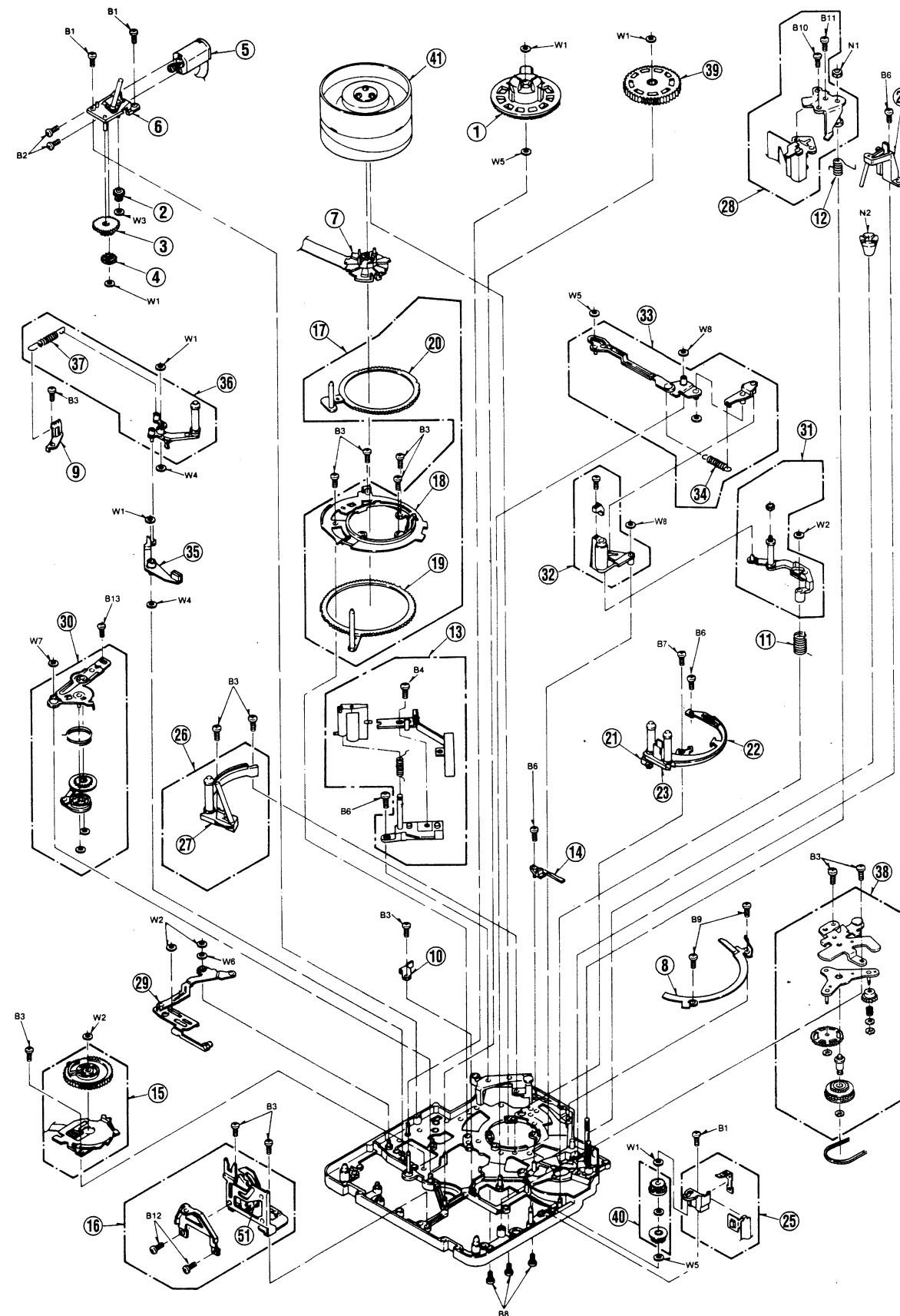
Memo



SECTION 4 EXPLODED VIEWS & PARTS LIST

4-1. EXPLODED VIEWS & MECHANICAL REPLACEMENT PARTS LIST

① VTR MECHANISM SECTION (1)

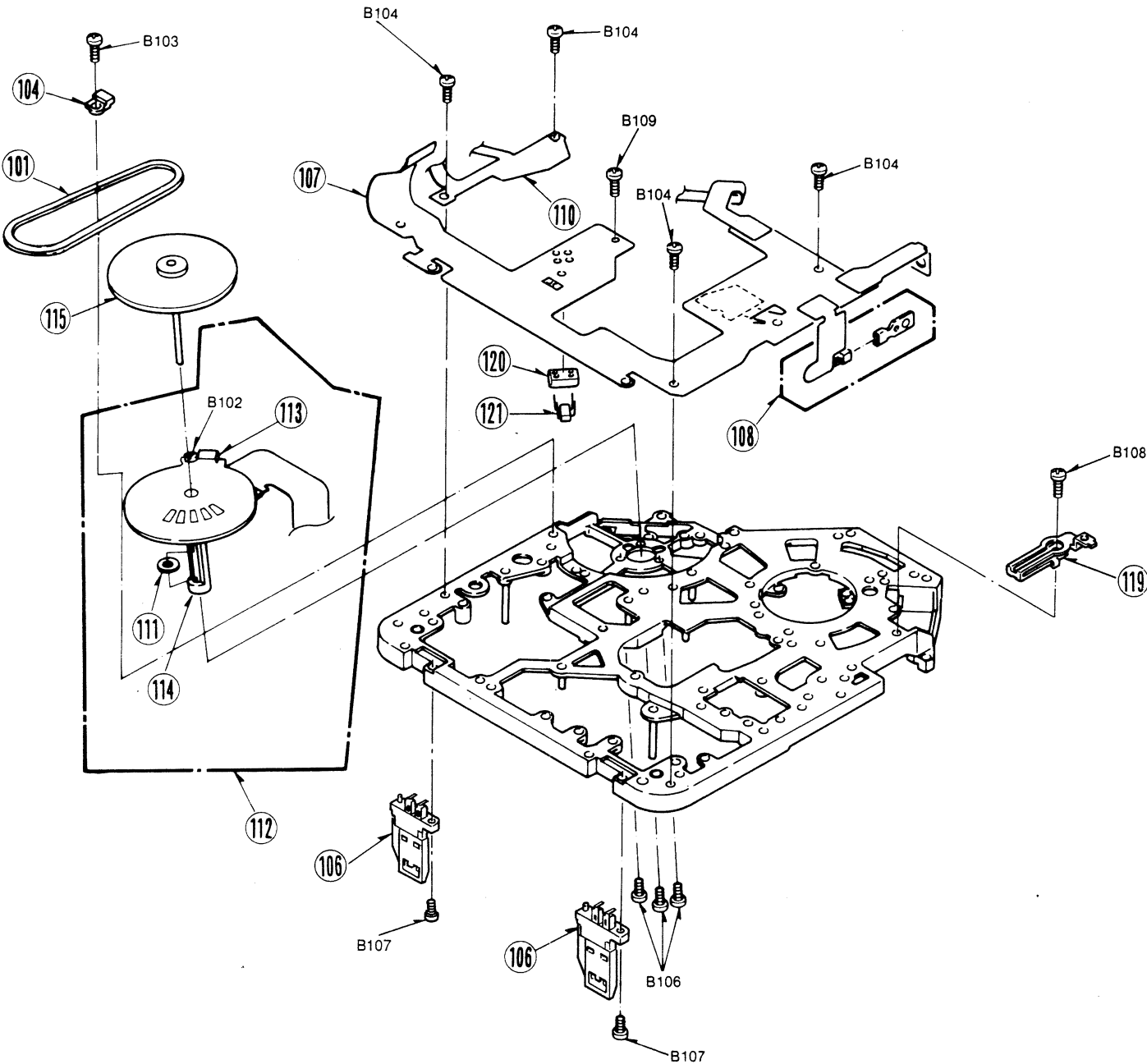


Note: 1. * Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark Δ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1 (1)	VDR0226	REEL BASE (S)	1	
2 (1)	VDG0821	BRAKE GEAR (A)	1	
3 (1)	VDG0822	BRAKE GEAR (B)	1	
4 (1)	VDG0823	BRAKE GEAR (C)	1	
5 (1)	VEM0417	LOADING MOTOR (1) U.	1	
6 (1)	VXA4527	MOTOR HOLDER U.	1	
7 (1)	VEK7073	RT CONNECTOR U.	1	
8 (1)	VMA8502	T-RING SLIDER	1	
9 (1)	VMA8505	TEN-REG. SPRING HOOK	1	
10 (1)	VMA8532	PENDULUM ARM HOLDER	1	
11 (1)	VMB2362	T3 ARM SPRING	1	
12 (1)	VMB2365	AC HEAD SPRING	1	
13 (1)	VXA5306	S-GUIDE STAND U.	1	
14 (1)	VMD1851	T-BOAT GUIDE	1	
15 (1)	VSR0096	MODE SWITCH U.	1	
16 (1)	VXA5001	LOCK BASE U.	1	
17 (1)	VXA4517	LOADING RING U.	1	
18 (1)	VMD1824	RING GUIDE	1	
19 (1)	VXA4518	T-RING U.	1	
20 (1)	VXA4519	S-RING U.	1	
21 (1)	VEK5549	LED U.	1	
22 (1)	VMD1828	T-RAIL	1	
23 (1)	VXA5260	T-BOAT U.	1	
24 (1)	VXA4528	T4 POST U.	1	
25 (1)	VXA4997	T-REEL SENSOR U.	1	
26 (1)	VXA5153	S-RAIL U.	1	
27 (1)	VXA5124	S-BOAT U.	1	
28 (1)	VXA5201	AC HEAD U.	1	
29 (1)	VXL2393	EJECT LEVER (1) U.	1	
30 (1)	VXL2401	SWING ARM U.	1	
31 (1)	VXL2431	T3 ARM (A) U.	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
32 (1)	VXL2139	PINCH ARM U.	1	
33 (1)	VXL2140	PINCH DRIVE ARM U.	1	
34 (1)	VMB2363	PINCH PRESSURE SPRING	1	
35 (1)	VXL2144	PAD ARM U.	1	
36 (1)	VXL2145	TEN-REG. ARM U.	1	
37 (1)	VMB2364	TEN-REG. SPRING	1	
38 (1)	VXL2399	IDLER U.	1	
39 (1)	VXP1308	RELAY GEAR U.	1	
40 (1)	VXP1313	T-DRIVE GEAR U.	1	
41 (1)	VEG1144	CYLINDER U.	1	
51 (1)	VMB2369	LOCK SPRING	1	
B1 (1)	XQN14+B25FY	SCREW	3	
B2 (1)	XQN14+A14	SCREW	2	
B3 (1)	XQN14+B2	SCREW	13	
B4 (1)	XQN14+BJ35	SCREW	1	
B6 (1)	XQN14+CF4	SCREW	4	
B7 (1)	XQN14+C5	SCREW	1	
B8 (1)	XQN14+C35R	SCREW	3	
B9 (1)	VHD0711	SCREW	2	
B10 (1)	VHD0700	SCREW	1	
B11 (1)	VHD0699	SCREW	1	
B12 (1)	XQN14+C2	SCREW	2	
B13 (1)	VHD0707	SCREW	1	
N1 (1)	VHN0047	NUT	1	
N2 (1)	VHN0175	NUT	1	
W1 (1)	VMX2027	WASHER	6	
W2 (1)	VMX2026	WASHER	4	
W3 (1)	VMX2051	WASHER	1	
W4 (1)	XWGV12Z3G	WASHER	2	
W5 (1)	XWGV12Y3G	WASHER	3	
W6 (1)	XWGV0007	WASHER	1	
W7 (1)	VMX2366	WASHER	1	
W8 (1)	VMX2359	CUT WASHER	2	

2 VTR MECHANISM SECTION (2)

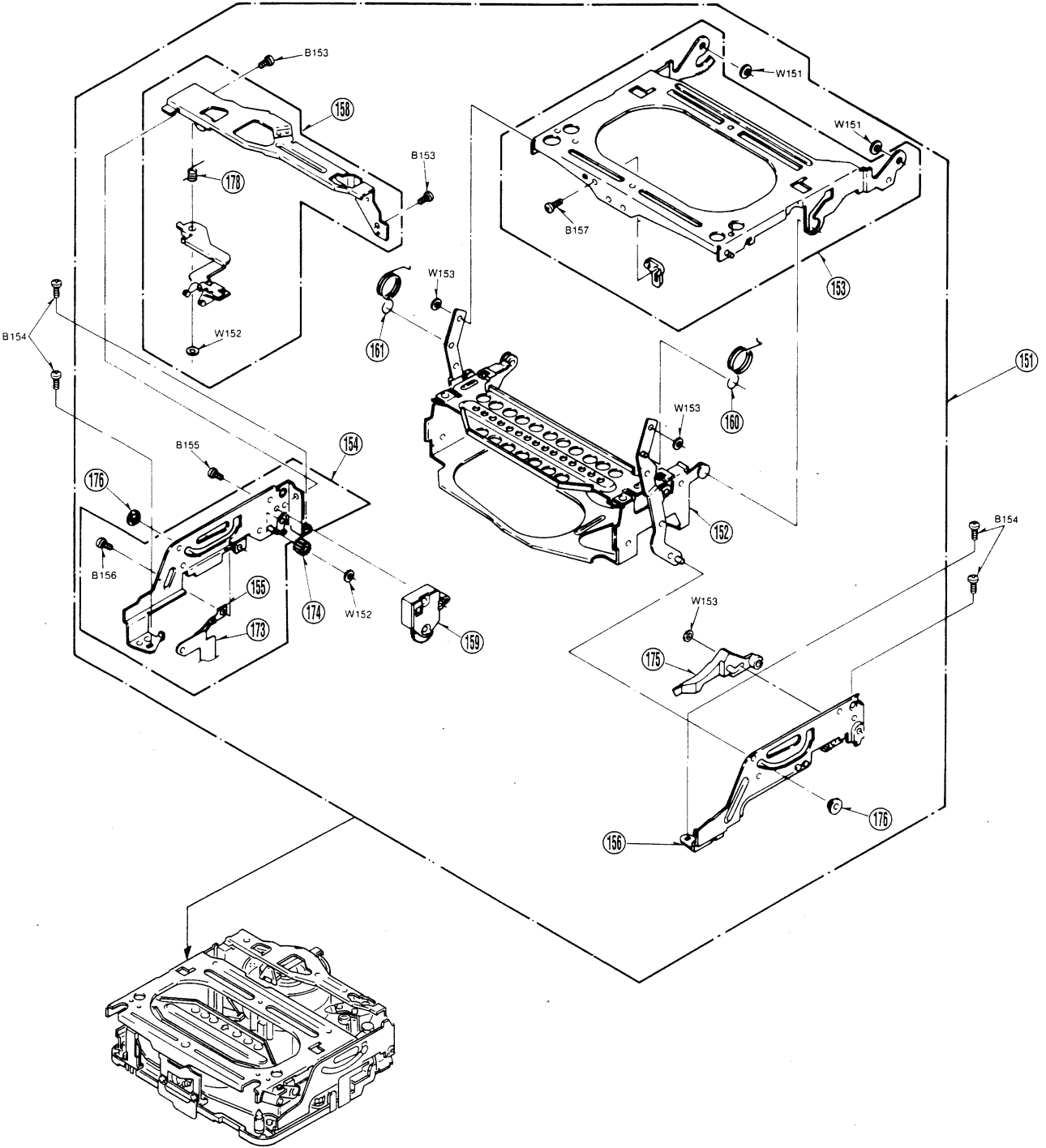


Note: 1. * Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark Δ have the special characteristics for safety. When replacing any of these components, use only the same type.

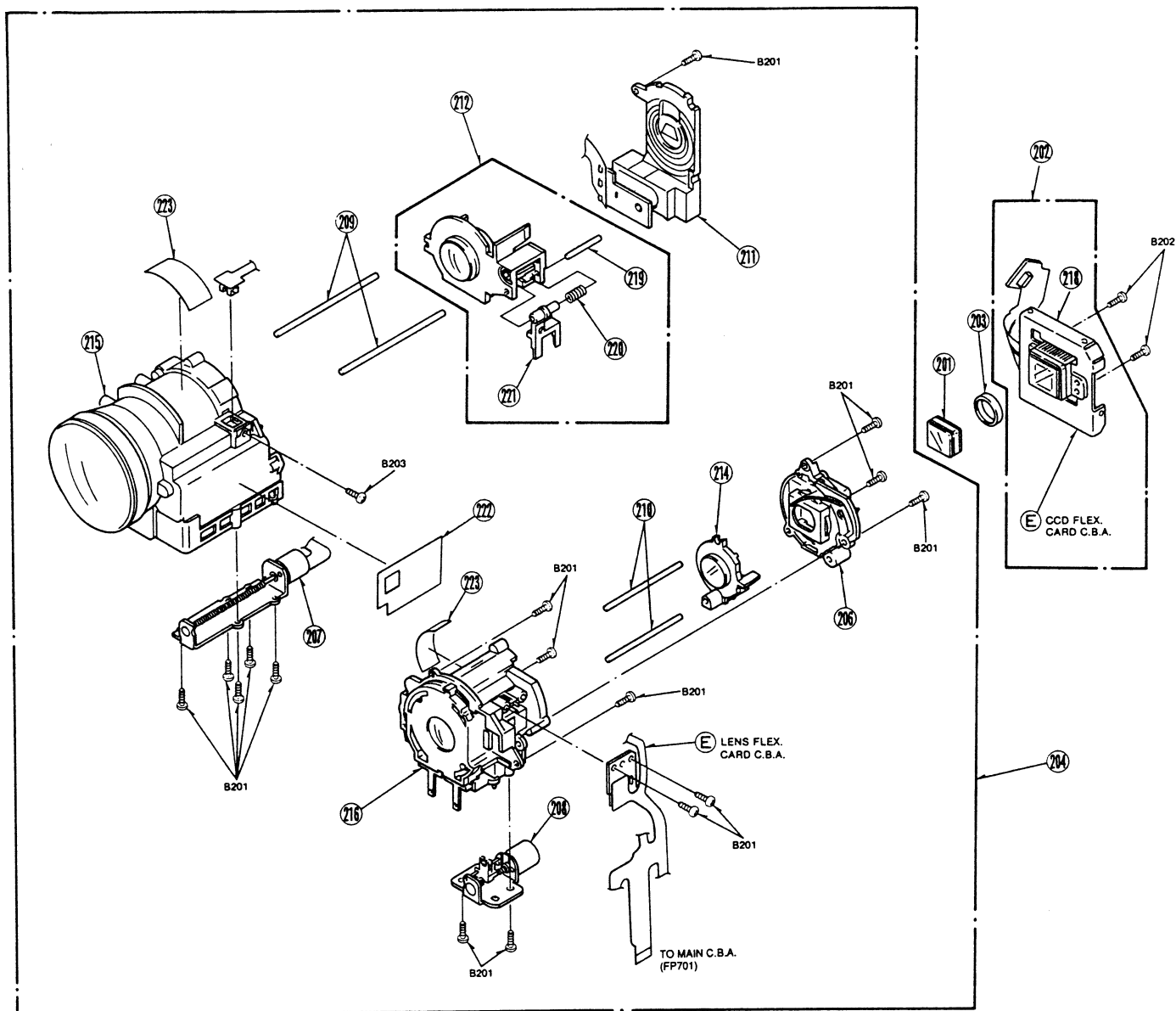
Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
101 (2)	VDV0232	CAPSTAN BELT	1	
104 (2)	VMD1846	CAPSTAN STOPPER	1	
106 (2)	VSH0065	REC SAFETY SW U.	2	
107 (2)	VWJ0878	MECH. FLEXIBLE CARD	1	
108 (2)	VXA4511	PHOTO (L) U.	1	
110 (2)	VXA4997	T-REEL SENSOR U.	1	
111 (2)	VDB1129	LOWER BEARING	1	
112 (2)	VEK7314	STATOR U.	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
113 (2)	VBK0059	MR HEAD	1	
114 (2)	VXD0134	HOUSING U.	1	
115 (2)	VXP1303	ROTOR U.	1	
119 (2)	VMP4923	H. A. EARTH PLATE	1	
120 (2)	VMD1842	REEL SENSOR MOUNT	1	
121 (2)	ON2170-LM	REEL SENSOR	1	
B102 (2)	VHD0593	SCREW	1	
B103 (2)	XQN14+B25FY	SCREW	1	
B104 (2)	XQN14+C2R	SCREW	4	
B106 (2)	XQN14+A3	SCREW	3	
B107 (2)	XQN14+CF4	SCREW	2	
B108 (2)	XQN14+C2	SCREW	1	
B109 (2)	VHD0875	SCREW	1	

3 VTR MECHANISM SECTION (3)



4 CAMERA LENS SECTION



Note: 1. * Be sure to make your orders of replacement parts according to this list.

2. IMPORTANT SAFETY NOTICE

Components identified with the mark Δ have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
201 (4)	VDL0421	CRYSTAL FILTER	1	
202 (4)	VEK7975	CCD UNIT	1	
203 (4)	VWX2376	CCD CUSHION	1	
204 (4)	VXW0322	LENS U.	1	
206 (4)	VDW0319	CRYSTAL MOUNT PLATE	1	
207 (4)	VEW0601	ZOOM MOTOR U.	1	
208 (4)	VEW0451	FOCUS MOTOR U.	1	
209 (4)	VMS5735	Z GUIDE POLE	2	
210 (4)	VMS5736	F GUIDE POLE	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
211 (4)	VXL2445	IRIS U.	1	
212 (4)	VXP1554	2ND. MOVING FRAME U.	1	
214 (4)	VXP1555	4TH. MOVING FRAME U.	1	
215 (4)	VXQ0440	MAIN FRAME U.	1	
216 (4)	VXQ0441	3RD. LENS FRAME U.	1	
218 (4)	VSC3671	CCD SHIELD CASE	1	
219 (4)	VMS5734	RACK G. P	1	
220 (4)	VMB2796	2ND. SPRING	1	
221 (4)	VML2911	2ND. RACK	1	
222 (4)	VMA9343	PLUMBIC SHEET (A)	1	
223 (4)	VMA9344	PLUMBIC SHEET (B)	1	
B201 (4)	XQN16+CJ5	SCREW	15	
B202 (4)	XQN16+CJ6	SCREW	2	
B203 (4)	VHD0852	SCREW	1	

This diagram illustrates the exploded view of a video camera body, detailing the assembly of various components. The main body is shown in the center, with numerous parts and sub-assemblies surrounding it, each labeled with a part number and a description.

Key Components and Labels:

- Top Section:** Includes the viewfinder (B514), eyepiece (B509), and various mounting brackets (B502, B503, B504, B505, B506, B507, B508, B509, B510, B511, B512, B513, B514, B515, B516, B517, B518, B519, B520, B521, B522, B523, B524, B525, B526, B527, B528, B529, B530, B531, B532, B533, B534, B535, B536, B537, B538, B539, B540, B541, B542, B543, B544, B545, B546, B547, B548, B549, B550, B551, B552, B553, B554, B555, B556, B557, B558, B559, B560, B561, B562, B563, B564, B565, B566, B567, B568, B569, B570, B571, B572, B573, B574, B575, B576, B577, B578, B579, B580, B581, B582, B583, B584, B585, B586, B587, B588, B589, B590, B591, B592, B593, B594, B595, B596, B597, B598, B599, B600, B601, B602, B603, B604, B605, B606, B607, B608, B609, B610, B611, B612, B613, B614, B615, B616, B617, B618, B619, B620, B621, B622, B623, B624, B625, B626, B627, B628, B629, B630, B631, B632, B633, B634, B635, B636, B637, B638, B639, B640, B641, B642, B643, B644, B645, B646, B647, B648, B649, B650, B651, B652, B653, B654, B655, B656, B657, B658, B659, B660, B661, B662, B663, B664, B665, B666, B667, B668, B669, B670, B671, B672, B673, B674, B675, B676, B677, B678, B679, B680, B681, B682, B683, B684, B685, B686, B687, B688, B689, B690, B691, B692, B693, B694, B695, B696, B697, B698, B699, B700, B701, B702, B703, B704, B705, B706, B707, B708, B709, B710, B711, B712, B713, B714, B715, B716, B717, B718, B719, B720, B721, B722, B723, B724, B725, B726, B727, B728, B729, B730, B731, B732, B733, B734, B735, B736, B737, B738, B739, B740, B741, B742, B743, B744, B745, B746, B747, B748, B749, B750, B751, B752, B753, B754, B755, B756, B757, B758, B759, B760, B761, B762, B763, B764, B765, B766, B767, B768, B769, B770, B771, B772, B773, B774, B775, B776, B777, B778, B779, B780, B781, B782, B783, B784, B785, B786, B787, B788, B789, B790, B791, B792, B793, B794, B795, B796, B797, B798, B799, B800, B801, B802, B803, B804, B805, B806, B807, B808, B809, B810, B811, B812, B813, B814, B815, B816, B817, B818, B819, B820, B821, B822, B823, B824, B825, B826, B827, B828, B829, B830, B831, B832, B833, B834, B835, B836, B837, B838, B839, B840, B841, B842, B843, B844, B845, B846, B847, B848, B849, B850, B851, B852, B853, B854, B855, B856, B857, B858, B859, B860, B861, B862, B863, B864, B865, B866, B867, B868, B869, B870, B871, B872, B873, B874, B875, B876, B877, B878, B879, B880, B881, B882, B883, B884, B885, B886, B887, B888, B889, B890, B891, B892, B893, B894, B895, B896, B897, B898, B899, B900, B901, B902, B903, B904, B905, B906, B907, B908, B909, B910, B911, B912, B913, B914, B915, B916, B917, B918, B919, B920, B921, B922, B923, B924, B925, B926, B927, B928, B929, B930, B931, B932, B933, B934, B935, B936, B937, B938, B939, B940, B941, B942, B943, B944, B945, B946, B947, B948, B949, B950, B951, B952, B953, B954, B955, B956, B957, B958, B959, B960, B961, B962, B963, B964, B965, B966, B967, B968, B969, B970, B971, B972, B973, B974, B975, B976, B977, B978, B979, B980, B981, B982, B983, B984, B985, B986, B987, B988, B989, B990, B991, B992, B993, B994, B995, B996, B997, B998, B999, B1000, B1001, B1002, B1003, B1004, B1005, B1006, B1007, B1008, B1009, B1010, B1011, B1012, B1013, B1014, B1015, B1016, B1017, B1018, B1019, B1020, B1021, B1022, B1023, B1024, B1025, B1026, B1027, B1028, B1029, B1030, B1031, B1032, B1033, B1034, B1035, B1036, B1037, B1038, B1039, B1040, B1041, B1042, B1043, B1044, B1045, B1046, B1047, B1048, B1049, B1050, B1051, B1052, B1053, B1054, B1055, B1056, B1057, B1058, B1059, B1060, B1061, B1062, B1063, B1064, B1065, B1066, B1067, B1068, B1069, B1070, B1071, B1072, B1073, B1074, B1075, B1076, B1077, B1078, B1079, B1080, B1081, B1082, B1083, B1084, B1085, B1086, B1087, B1088, B1089, B1090, B1091, B1092, B1093, B1094, B1095, B1096, B1097, B1098, B1099, B1100, B1101, B1102, B1103, B1104, B1105, B1106, B1107, B1108, B1109, B1110, B1111, B1112, B1113, B1114, B1115, B1116, B1117, B1118, B1119, B1120, B1121, B1122, B1123, B1124, B1125, B1126, B1127, B1128, B1129, B1130, B1131, B1132, B1133, B1134, B1135, B1136, B1137, B1138, B1139, B1140, B1141, B1142, B1143, B1144, B1145, B1146, B1147, B1148, B1149, B1150, B1151, B1152, B1153, B1154, B1155, B1156, B1157, B1158, B1159, B1160, B1161, B1162, B1163, B1164, B1165, B1166, B1167, B1168, B1169, B1170, B1171, B1172, B1173, B1174, B1175, B1176, B1177, B1178, B1179, B1180, B1181, B1182, B1183, B1184, B1185, B1186, B1187, B1188, B1189, B1190, B1191, B1192, B1193, B1194, B1195, B1196, B1197, B1198, B1199, B1200, B1201, B1202, B1203, B1204, B1205, B1206, B1207, B1208, B1209, B1210, B1211, B1212, B1213, B1214, B1215, B1216, B1217, B1218, B1219, B1220, B1221, B1222, B1223, B1224, B1225, B1226, B1227, B1228, B1229, B1230, B1231, B1232, B1233, B1234, B1235, B1236, B1237, B1238, B1239, B1240, B1241, B1242, B1243, B1244, B1245, B1246,

Note: 1. Be sure to make your orders of replacement parts according to this list.

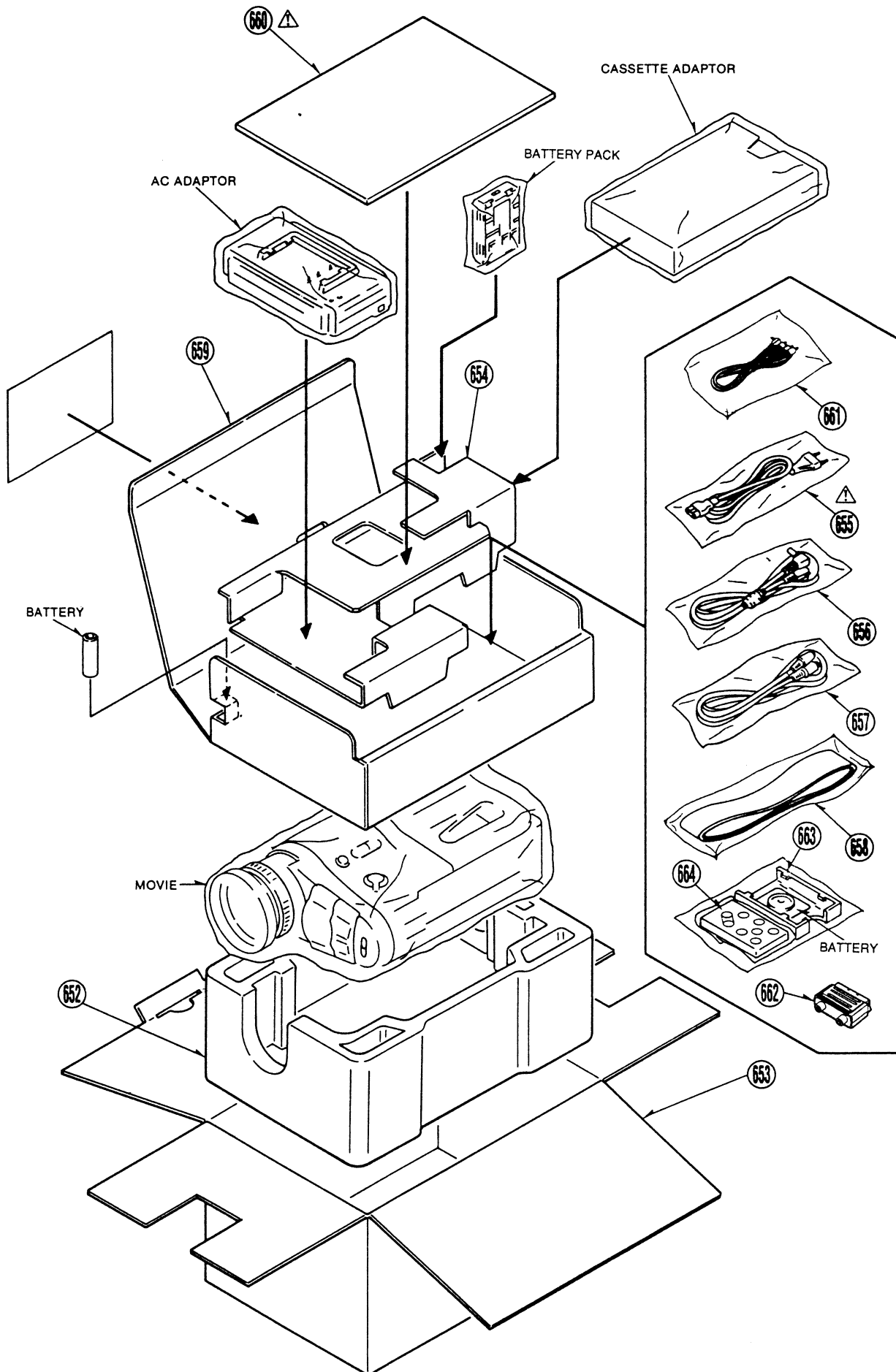
2. IMPORTANT SAFETY NOTICE

Components identified with the mark  have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
501 (5)	VKM4494	SIDE CASE (R)	1	
502 (5)	VXU1440	AE DIAL U.	1	
504 (5)	VYK7195	CASSETTE COVER (1) U.	1	
505 (5)	VGU7177	CASSETTE LOCK BUTTON	1	
506 (5)	VMB2604	CASSETTE COIL SPRING	1	
508 (5)	VYK7220	SIDE CASE (L) (1) U.	1	
509 (5)	VXU1419	ZOOM BUTTON U.	1	
510 (5)	VGQ4225	ZOOM BARRIER	1	
511 (5)	VGQ3457	SHEET	1	
513 (5)	VXU1398	S/S BUTTON U.	1	
514 (5)	VGQ4084	S/S BUTTON HOLDER	1	
515 (5)	VMB2594	S/S BUTTON COVER SPRING	1	
517 (5)	VGQ4206	S/S BUTTON SHEET	1	
518 (5)	VMB0833	RUBBER SW	1	
519 (5)	VYC0618	GRIP BELT U.	1	
520 (5)	VKF2502	AV JACK COVER	1	
522 (5)	YEK5550	DEW SENSOR	1	
523 (5)	VYF2157	HOOD COVER U.	1	
525 (5)	VGQ4231	LENS COVER	1	
530 (5)	VYK7197	FRONT CASE (1) U.	1	
535 (5)	VGQ4136	EVF LOCK PIECE	1	
538 (5)	VMB0631	EYE CAP	1	
539 (5)	VKM4498	EVF MOUNT PANEL	1	
540 (5)	VYK6784	EVF ROTARY ANGLE U.	1	
543 (5)	MOILGMO7WB02	CRT	1	
544 (5)	VYK7208	TOP PANEL (1) U.	1	
545 (5)	VMS6103	SHAFT	1	
546 (5)	VKF2603	VTR DOOR	1	
547 (5)	VEK7739	VTR OPERATION U	1	
548 (5)	VGQ4227	TOP BLINDER BARRIER	1	
562 (5)	VKM4495	REAR CASE	1	
563 (5)	VGQ4118	BATTERY LOCK	1	
564 (5)	VGU7169	EJECT KNOB	1	
565 (5)	VGQ4123	EJECT C. B. A. HOLDER	1	
566 (5)	VMB2386	BATTERY LOCK SPRING	1	
576 (5)	VKM4496	EVF CASE (UPPER)	1	
577 (5)	VKM4497	EVF CASE (LOWER)	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
578 (5)	VGQ4228	EVF BLINDER BARRIER	1	
579 (5)	VGQ4226	EVF WIRE BARRIER	1	
593 (5)	VEK7880	CAMERA OPERATION UNIT	1	
598 (5)	VEE9660	S/S/ ZOOM /EJECT CABLE U.	1	
599 (5)	VMG0980	BACK LIGHT BUTTON	1	
600 (5)	VYQ1334	LENS HOOD U.	1	
601 (5)	VYQ1275	MAIN FRAME U.	1	
602 (5)	VGL0737	TALLY PANEL LIGHT	1	
603 (5)	VGU7309	DIS SELECT KNOB	1	
605 (5)	VGU7308	MF SELECT BUTTON	1	
606 (5)	VGQ4223	DIS KNOB HOLDER	1	
607 (5)	VGQ4236	JACK HOLD PIECE	1	
608 (5)	VGQ2607	BATTERY LOCK HOLDER	1	
609 (5)	VMP4948	BATTERY LOCK HOLD ANGLE	1	
611 (5)	VMG0999	CAMERA OPERATION BUTTON	1	
612 (5)	VYK6780	FINDER CASE U.	1	
613 (5)	ELY05V584A	DY	1	
615 (5)	VGU7207	AGS KNOB	1	
616 (5)	VXP1790	MF RING U.	1	
620 (5)	VGU7247	VTR OPERATION BUTTON	1	
621 (5)	VGL0725	TOP PANEL LIGHT	1	
B501 (5)	VHD0794	SCREW	3	
B502 (5)	XQN2+CF7FZ	SCREW	2	
B503 (5)	XQN2+CJ12FZ	SCREW	1	
B504 (5)	XQN16+CQ35	SCREW	1	
B505 (5)	XQN16+CG8FZ	SCREW	2	
B506 (5)	XQN2+CJ8	SCREW	3	
B507 (5)	XQN2+CJ6FZ	SCREW	4	
B508 (5)	XQN2+CJ6	SCREW	8	
B509 (5)	XQN2+CJ8FZ	SCREW	1	
B510 (5)	XQN16+CJ4	SCREW	1	
B512 (5)	XQN2+CF4FZ	SCREW	1	
B513 (5)	XQN2+BF4	SCREW	1	
B514 (5)	XQN2+CG6FZ	SCREW	9	
B515 (5)	VHD0687	SCREW	1	
B517 (5)	XQN2+CJ4	SCREW	2	
B519 (5)	XTB2+4F	SCREW	1	
B520 (5)	VHD1054	SCREW	2	
B521 (5)	VHD0713	SCREW	2	
B522 (5)	XQN2+C3	SCREW	1	
B523 (5)	XQN2+CJ5	SCREW	9	
B524 (5)	XQN2+CF12FZ	SCREW	1	

⑥ PACKING PARTS & ACCESSORIES SECTION



2. IMPORTANT SAFETY NOTICE

Components identified with the mark have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
	VFK0644	EVF FIXTURE	1	
	VFK0701ROM38	ROM	1	
	VFK0766A	EVF CONNECTION CABLE 5P	1	
	VFK0734W	MEASURET CABLE 24P	1	
	VFKWOF0033	ATTACHMENT CABLE	2	OR VFK0670
	VFKWOF0055	ATTACHMENT CABLE	2	
	VFKWOF0001	COMMON CABLE	2	
	VFKWOF0128	ATTACHMENT CABLE	1	OR VFK0978
	VFKWOF0127	ATTACHMENT CABLE	1	
	VFKWOF0001	COMMON CABLE	1	
	VFKWOF0118	ATTACHMENT CABLE	1	OR VFK0929
	VFKWOF0117	ATTACHMENT CABLE	1	
	VFKWOF0001	COMMON CABLE	1	
	VFKWOF0132	ATTACHMENT CABLE	1	OR VFK0980
	VFKWOF0131	ATTACHMENT CABLE	1	
	VFKWOF0001	COMMON CABLE	1	
	VFKWOF0111	ATTACHMENT CABLE	1	OR VFK013
	VFKWOF0112	ATTACHMENT CABLE	1	
	VFKWOF0001	COMMON CABLE	1	
	VFKWOF0140	ATTACHMENT CABLE	1	
	VFKWOF0139	ATTACHMENT CABLE	1	
	VFKWOF0001	COMMON CABLE	1	
	VFK0668	EXTENSION CABLE	1	
		----- MECHANICAL -----		
	VFK0743	H-POSITION ADJUSTMENT	1	
	VFK0824	ASTERISK TYPE WRENCH	1	
	VFK0335	RETAINING RING REMOVER	1	
	VFK0329	POST ADJ. SCREW DRIVER	1	
	VFK0326	HEX WRENCH SET	1	
	VFK27	HEAD CLEANING STICK	1	
	VFK1024	MORLYTONE GREASE	1	

4.2. ELECTRICAL REPLACEMENT PARTS LIST

Note: 1. Be sure to make your orders of replacement parts according to this list.
 2. IMPORTANT SAFETY NOTICE: Components identified with the mark Δ have the special characteristics for safety. When replacing any of these components, use only the same type.
 3. Unless otherwise specified,
 All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICROFARADS(uF), P=uF.
 4. The P.C. Board units marked with "■" show below the main assembled parts.
 5. The marking (RTL) indicates the retention time is limited for this item.
 After the discontinuation of this assembly in production, it will no longer be available.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■	VEP23418A	CAMERA/MAIN C.B.A. (Page: 4-10)	1 (RTL)	
■	VEP28229J	E.V.F. C.B.A. (Page: 4-17)	1 (RTL)	
■	VEP22250C	CCD FLEX. CARD C.B.A. (Page: 4-18)	1 (RTL)	
■	VEK7799	LENS FLEX. CARD C.B.A. (Page: 4-19)	1 (RTL)	
■	VEK7839	MIC UNIT (Page: 4-19)	1 (RTL)	
■	VEP00X54B	EJECT C.B.A. (Page: 4-19)	1 (RTL)	
■	VEP00V80A	S/S C.B.A. (Page: 4-19)	1 (RTL)	
■	VEP03D49A	S/EDIT C.B.A. (Page: 4-19)	1 (RTL)	
■	VXP1790	MF RING U. (Page: 4-19)	1 (RTL)	
■	VEP23418A	CAMERA/MAIN C.B.A.	(RTL)	
C201	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
C202	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C203	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C204	ECST0JX226Z	T. CAPACITOR CH 6.3V 22U	1	
C205	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
C206	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C207	ECST0JX226Z	T. CAPACITOR CH 6.3V 22U	1	
C208	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C209	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1	
C210	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C211-17	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	7	
C219	ECST1AX156Z	T. CAPACITOR CH 10V 15U	1	
C220	ECST1CY475Z	T. CAPACITOR CH 16V 4.7U	1	
C221	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C222	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C224. 25	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	2	
C227	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C228	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
C229	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1	
C230	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
C231	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1	
C232	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C236	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C237	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C238	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	1	
C239	ECST0GY226Z	T. CAPACITOR CH 4V 22U	1	
C240	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	1	
C241	ECUX1H102KVB	C. CAPACITOR CH 50V 1000P	1	
C242. 43	ECUX1H080CCV	C. CAPACITOR CH 50V 8P	2	
C244	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C245	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	1	
C247	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C248	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
C250	ECUM1E684KB	C. CAPACITOR CH 25V 0.68U	1	
C251	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C252	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C254	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C256	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C257	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C258	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	1	
C259. 60	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	2	
C261	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C263	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C264	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C265	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	1	
C266-68	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	3	
C269	ECUX1C104KVB	C. CAPACITOR CH 16V 0.1U	1	
C271	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	1	
C290	ECUX1H102KVB	C. CAPACITOR CH 50V 1000P	1	
C301. 02	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	2	
C303	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
C304	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C305	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C306	ECUX1C104KVB	C. CAPACITOR CH 16V 0.1U	1	
C307-09	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	3	
C310	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C311	ECUX1H102KVB	C. CAPACITOR CH 50V 1000P	1	
C312	ECUX1C104KVB	C. CAPACITOR CH 16V 0.1U	1	
C313	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1	
C314	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
C316	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C318-20	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	3	
C321	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C322	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C323	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C324	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C325	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C326	ECUX1C104KVB	C. CAPACITOR CH 16V 0.1U	1	
C327. 28	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	2	
C329. 30	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	2	
C331	ECUX1H102KVB	C. CAPACITOR CH 50V 1000P	1	
C332	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C334	ECST0JX226Z	T. CAPACITOR CH 6.3V 22U	1	
C335. 36	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	2	
C337	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	1	
C338	ECEVOJA101	E. CAPACITOR CH 6.3V 100U	1	
C339	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C340	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
C341-43	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	3	
C344	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C345. 46	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	2	
C347	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1	
C348	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C349	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	1	
C350	ECUX1H680JCV	C. CAPACITOR CH 50V 68P	1	
C351	ECUX1C104KVB	C. CAPACITOR CH 16V 0.1U	1	
C701	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C702	ECUX1H332KVB	C. CAPACITOR CH 50V 3300P	1	
C703	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C704	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C705	ECEVICA101	E. CAPACITOR CH 16V 100U	1	
C706	ECUX1H332KVB	C. CAPACITOR CH 50V 3300P	1	
C707	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C708	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C709. 10	ECUX1C104KVB	C. CAPACITOR CH 16V 0.1U	2	
C711	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C719	ECUX1H102KVB	C. CAPACITOR CH 50V 1000P	1	
C720	ECUM1A105KBN	C. CAPACITOR CH 10V 1U	1	
C721	ECUX1H102KVB	C. CAPACITOR CH 50V 1000P	1	
C722	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1	
C1001	ECUM1A225KBM	C. CAPACITOR CH 10V 22U	1	
C1002. 03	ECUM1A335KBP	C. CAPACITOR CH 10V 33U	2	
C1004	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1	
C1005	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C1008	ECUM1A335KBP	C. CAPACITOR CH 10V 33U	1	
C1009	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1	
C1010	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C1012	ECUX1H102KVB	C. CAPACITOR CH 50V 1000P	1	
C1017	ECUM1E105KBP	C. CAPACITOR CH 50V 1U	1	
C1019	ECUM1E334KBM	C. CAPACITOR CH 25V 0.33U	1	
C1020	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1022	ECUM1H104ZFN	C. CAPACITOR CH 50V 0.1U	1		C3037	ECUX1H391JCV	C. CAPACITOR CH 50V 390P	1	
C1024	ECUM1A105KBM	C. CAPACITOR CH 10V 1U	1		C3038	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1	
C1025	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1		C3043	ECUX1H561JCV	C. CAPACITOR CH 50V 560P	1	
C1026	ECEV1HA010	E. CAPACITOR CH 50V 1U	1		C3045	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C1027	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1		C3046, 47	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	2	
C1028	ECEV1HAR47	E. CAPACITOR CH 50V 0.47U	1		C3048, 49	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2	
C1029	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1		C3050	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1	
C1030	ECUX1H822KBV	C. CAPACITOR CH 50V 8200P	1		C3051	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C1031	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1		C3052	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1	
C1032	ECUX1H822KBV	C. CAPACITOR CH 50V 8200P	1		C3053	ECEV05A470	E. CAPACITOR CH 4V 47U	1	
C1033-35	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	3		C3054-58	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	5	
C1036	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1		C3060	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C1037	ECUX1C473KBV	C. CAPACITOR CH 16V 0.047U	1		C3061	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1	
C1040, 41	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		C3062	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C1042	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		C3063	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1	
C1044	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		C3064	ECUX1H100GCV	C. CAPACITOR CH 50V 10P	1	
C1051	ECUM1C334KBN	C. CAPACITOR CH 16V 0.33U	1		C3065	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1	
C1054	ECEV05A470	E. CAPACITOR CH 4V 47U	1		C3066	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C1055	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		C3068	ECUX1H820JCV	C. CAPACITOR CH 50V 82P	1	
C1057	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		C3070, 71	ECUX1H271JCV	C. CAPACITOR CH 50V 270P	2	
C1064	ECUM1A335KBP	C. CAPACITOR CH 10V 33U	1		C3073	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C1066	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1		C3075	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1	
C1073	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		C3076	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C1080-82	ECUX1C473KBV	C. CAPACITOR CH 16V 0.047U	3		C3080	ECST1AX226Z	T. CAPACITOR CH 10V 22U	1	
C1084	ECUX1H561JCV	C. CAPACITOR CH 50V 560P	1		C3081	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1	
C1111	ECUM1A335KBP	C. CAPACITOR CH 10V 33U	1		C3083	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C2001	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		C3084	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1	
C2002	ECST1CY105Z	T. CAPACITOR CH 16V 1U	1		C3085, 86	ECEV0GA471	E. CAPACITOR CH 4V 470U	2	
C2003	ECUX1H332KBV	C. CAPACITOR CH 50V 3300P	1		C3087	ECST1AY225Z	T. CAPACITOR CH 10V 2.2U	1	
C2004	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1		C3090, 91	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	2	
C2005	ECUX1H152KBV	C. CAPACITOR CH 50V 1500P	1		C3092	ECUX1H222KBV	C. CAPACITOR CH 50V 2200P	1	
C2007	ECST1CY105Z	T. CAPACITOR CH 16V 1U	1		C3093	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C2008	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		C3094	ECUX1H331JCV	C. CAPACITOR CH 50V 330P	1	
C2009	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1		C3100	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1	
C2010	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1		C3101	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C2011	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1		C3102	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1	
C2012, 13	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		C3103	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C2014	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1		C3110	ECUX1H471JCV	C. CAPACITOR CH 50V 470P	1	
C2015-17	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	3		C3111	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C2018	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1		C3112	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C2019	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1		C3113	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1	
C2020-22	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	3		C3114	ECUX1H680JCV	C. CAPACITOR CH 50V 68P	1	
C2023	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	1		C3115	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C2025-27	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	3		C3117	ECUX1H180JCV	C. CAPACITOR CH 50V 18P	1	
C2028	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1		C3118	ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1	
C2029	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1		C3120	ECUX1H390JCV	C. CAPACITOR CH 50V 39P	1	
C2030-32	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	3		C3121	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1	
C2040-42	ECUX1C473KBV	C. CAPACITOR CH 16V 0.047U	3		C4001	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C2043	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1		C4002	ECST1EY474Z	T. CAPACITOR CH 25V 0.47U	1	
C2070	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		C4004	ECUX1H123KBV	C. CAPACITOR CH 50V 0.012U	1	
C3001	ECST0JX226Z	T. CAPACITOR CH 6.3V 22U	1		C4005	ECST0JY475Z	T. CAPACITOR CH 6.3V 4.7U	1	
C3002	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1		C4006	ECST1EY474Z	T. CAPACITOR CH 25V 0.47U	1	
C3003, 04	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		C4007	ECEV1CA100	E. CAPACITOR CH 16V 10U	1	
C3005-08	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	4		C4008	ECUX1C474KBN	C. CAPACITOR CH 16V 0.47U	1	
C3009	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1		C4010, 11	ECUX1H562KBV	C. CAPACITOR CH 50V 5600P	2	
C3010, 11	ECUM1C105KBM	C. CAPACITOR CH 16V 1U	2		C4012	ECUM1C334KBN	C. CAPACITOR CH 16V 0.33U	1	
C3012	ECUM1E104KBN	C. CAPACITOR CH 25V 0.1U	1		C4013	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C3013	ECUX1C474KBN	C. CAPACITOR CH 16V 0.47U	1		C4014	ECST0JX226Z	T. CAPACITOR CH 6.3V 22U	1	
C3014, 15	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	2		C4015	ECUX1E223KBV	C. CAPACITOR CH 25V 0.023U	1	
C3016	ECUX1H391JCV	C. CAPACITOR CH 50V 390P	1		C4016	ECUX1H682KBV	C. CAPACITOR CH 50V 6800P	1	
C3017	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1		C4017	ECUM2A472JCM	C. CAPACITOR CH 100V 4700P	1	
C3018	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1		C4018	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	1	
C3019	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1		C4020	ECUM1C224KBN	C. CAPACITOR CH 16V 0.22U	1	
C3020	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1		C4021	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C3021	ECUX1H270JCV	C. CAPACITOR CH 50V 27P	1		C4023	ECUX1H392KBV	C. CAPACITOR CH 50V 3900P	1	
C3023	ECUX1H560JCV	C. CAPACITOR CH 50V 56P	1		C4501	ECST1CY225Z	T. CAPACITOR CH 16V 2.2U	1	
C3026	ECUX1H151JCV	C. CAPACITOR CH 50V 150P	1		C4502, 03	ECUM1C224KBN	C. CAPACITOR CH 16V 0.22U	2	
C3027	ECUX1H220JCV	C. CAPACITOR CH 50V 22P	1		C4504, 05	ECUX1C473KBV	C. CAPACITOR CH 16V 0.047U	2	
C3028	ECUX1E223KBV	C. CAPACITOR CH 25V 0.023U	1		C4506, 07	ECEV0GA330	E. CAPACITOR CH 4V 33U	2	
C3029	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1		C4508, 09	ECUM1A105KBM	C. CAPACITOR CH 10V 1U	2	
C3030	ECEV05A470	E. CAPACITOR CH 4V 47U	1		C4510, 11	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	2	
C3031	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		C4512, 13	ECEV05A470	E. CAPACITOR CH 4V 47U	2	
C3032, 33	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	2		C4514-19	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	6	
C3034	ECEV05A470	E. CAPACITOR CH 4V 47U	1		C4522, 23	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	2	
C3035, 36	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	2		C4524, 25	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4526	ECEVOGA101	E. CAPACITOR CH 4V 100U	1		C5573	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C4527	ECUM1C224KBN	C. CAPACITOR CH 16V 0.22U	1		C6001-04	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	4	
C4528	ECUX1H271JCV	C. CAPACITOR CH 50V 270P	1		C6006, 07	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	2	
C4532, 33	ECST1AY335Z	T. CAPACITOR CH 10V 3.3U	2		C6008, 09	ECUX1H120JCV	C. CAPACITOR CH 50V 12P	2	
C4534	ECEVOJA220	E. CAPACITOR CH 6.3V 22U	1		C6010	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C4535	ECSTOJY475Z	T. CAPACITOR CH 6.3V 4.7U	1		C6011	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1	
C4539-41	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	3		C6012, 13	ECUX1H030CCV	C. CAPACITOR CH 50V 3P	2	
C4542, 43	ECUX1C473KBV	C. CAPACITOR CH 16V 0.047U	2		C6014, 15	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	2	
C4544	ECUX1H121JCV	C. CAPACITOR CH 50V 120P	1		C6016	ECUM1A105KBN	C. CAPACITOR CH 10V 1U	1	
C4545, 46	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	2		C6018	ECUX1H010CCV	C. CAPACITOR CH 50V 1P	1	
C4550, 51	ECUX1H561JCV	C. CAPACITOR CH 50V 560P	2		C6020	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1	
C5001	ECSTOJY106Z	T. CAPACITOR CH 6.3V 10U	1		C6022, 23	ECUX1H221JCV	C. CAPACITOR CH 50V 220P	2	
C5002	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	1		C6025	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1	
C5003	ECUM1E683KBN	C. CAPACITOR CH 25V 0.068U	1		C6026	ECEV1CA470	E. CAPACITOR CH 16V 47U	1	
C5004	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		C6027	ECEVOGA101	E. CAPACITOR CH 4V 100U	1	
C5005	ECSTOJY106Z	T. CAPACITOR CH 6.3V 10U	1		C6029	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1	
C5006	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	1		C6030	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1	
C5007	ECSTOJY106Z	T. CAPACITOR CH 6.3V 10U	1		C6031	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1	
C5008	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	1		C6032	ECUM1A105KBN	C. CAPACITOR CH 10V 1U	1	
C5009	ECSTOJY106Z	T. CAPACITOR CH 6.3V 10U	1		C6033	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1	
C5010	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	1		C6034-36	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	3	
C5011	ECSTOJY106Z	T. CAPACITOR CH 6.3V 10U	1		C6038	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C5012, 13	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	2		C6039	ECUM1A105KBN	C. CAPACITOR CH 10V 1U	1	
C5014	ECSTOJX226Z	T. CAPACITOR CH 6.3V 22U	1		C6040	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1	
C5015-17	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	3		C6060	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C5018	ECUX1C333KBV	C. CAPACITOR CH 16V 0.033U	1		C6100	ECEV1CA100	E. CAPACITOR CH 16V 10U	1	
C5020	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		C6201, 02	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	2	
C5021-24	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	4		C6203	ECEV1CA100	E. CAPACITOR CH 16V 10U	1	
C5025	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		C6204	ECUM1C105KBN	C. CAPACITOR CH 16V 1U	1	
C5026-29	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	4		C6205	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1	
C5030-33	ECUX1H121JCV	C. CAPACITOR CH 50V 120P	4		C6206	ECEVO5A470	E. CAPACITOR CH 4V 47U	1	
C5034	ECUM1C105ZFN	C. CAPACITOR CH 16V 1U	1		C6207	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1	
C5036	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		C6208	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1	
C5037-40	ECUX1H100CCV	C. CAPACITOR CH 50V 10P	4		C6209	ECEVOJA220	E. CAPACITOR CH 6.3V 22U	1	
C5041, 42	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	2		C6210	ECUM1C105KBN	C. CAPACITOR CH 16V 1U	1	
C5044	ECSTOJY475Z	T. CAPACITOR CH 6.3V 4.7U	1		C6215, 16	ECEV1CA100	E. CAPACITOR CH 16V 10U	2	
C5501	ECUX1H391JCV	C. CAPACITOR CH 50V 390P	1		C6217	ECUX1H561JCV	C. CAPACITOR CH 50V 560P	1	
C5502	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1		C6218	ECUX1E223KBV	C. CAPACITOR CH 25V 0.023U	1	
C5503	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1						
C5504	ECEVO5A470	E. CAPACITOR CH 4V 47U	1		D203	1SS355	DIODE	1	
C5505	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1		D207-10	1SS355	DIODE	4	
C5506, 07	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		D212	1SS355	DIODE	1	
C5508	ECUM1C105KBN	C. CAPACITOR CH 16V 1U	1		D213	MA729	DIODE	1	
C5509	ECUX1H153KBV	C. CAPACITOR CH 50V 0.015U	1		D220	1SS355	DIODE	1	
C5511	ECST1AY225Z	T. CAPACITOR CH 10V 2.2U	1		D301-07	MA728	DIODE	7	
C5512	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1		D1002	EC200S06	DIODE	1	
C5513	ECUX1C104ZFY	C. CAPACITOR CH 16V 0.1U	1		D1006, 07	MA132K	DIODE	2	
C5514	ECSTOJY106Z	T. CAPACITOR CH 6.3V 10U	1		D1008	MA728	DIODE	1	
C5515	ECUX1H330JCV	C. CAPACITOR CH 50V 33P	1		D1015	U1FWJ44N	DIODE	1	
C5516	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1		D3003	MA132WK	DIODE	1	
C5517	ECUM1C105KBN	C. CAPACITOR CH 16V 1U	1		D3004	MA132WA	DIODE	1	
C5518	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		D3005	MA132K	DIODE	1	
C5519	ECUM1C224KBN	C. CAPACITOR CH 16V 0.22U	1		D3006-08	1SS355	DIODE	3	
C5520	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		D4501	MA133	DIODE	1	
C5521	ECUX1H020CCV	C. CAPACITOR CH 50V 2P	1		D6001, 02	MA728	DIODE	2	
C5522	ECUX1H470JCV	C. CAPACITOR CH 50V 47P	1		D6011	MA132WK	DIODE	1	
C5523	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1		D6012, 13	MA132WA	DIODE	2	
C5524	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		D6016	MA133	DIODE	1	
C5525	ECUX1C474KBN	C. CAPACITOR CH 16V 0.47U	1		D6018	MA728	DIODE	1	
C5526, 27	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	2		D6201	1SS355	DIODE	1	
C5528	ECSTOJY106Z	T. CAPACITOR CH 6.3V 10U	1						
C5529	ECUX1C474KBN	C. CAPACITOR CH 16V 0.47U	1		FL201	VLF1056	FILTER	1	
C5531	ECUX1C474KBN	C. CAPACITOR CH 16V 0.47U	1		FL202, 03	VLF1114M470	FILTER	2	
C5540	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1		FL3001	VLF1057	FILTER	1	
C5542	ECUX1C104KBV	C. CAPACITOR CH 16V 0.1U	1		FL3002	VLF1322	FILTER	1	
C5543	ECUX1H472KBV	C. CAPACITOR CH 50V 4700P	1		FL5501	VLF1323	FILTER	1	
C5544	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1						
C5545	ECSTOJY106Z	T. CAPACITOR CH 6.3V 10U	1		FP701	VJS3319D018	CONNECTOR (FEMALE)	18P	1
C5546	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	1		FP2001	VJS3828C007	CONNECTOR (FEMALE)	7P	1
C5547	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1		FP2002	VJS2960A018	CONNECTOR (FEMALE)	18P	1
C5548, 49	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		FP4001	VJS2958D009	CONNECTOR (FEMALE)	9P	1
C5550	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1		FP5001	VJS2959B023	CONNECTOR (FEMALE)	23P	1
C5552	ECUM1C105KBN	C. CAPACITOR CH 16V 1U	1		FP6001	VJS2959D018	CONNECTOR (FEMALE)	18P	1
C5553	ECUX1H150JCV	C. CAPACITOR CH 50V 15P	1		FP6002	VJS2959B006	CONNECTOR (FEMALE)	6P	1
C5556	ECUX1H103ZFY	C. CAPACITOR CH 50V 0.01U	1		FP6006	VJS3319D021	CONNECTOR (FEMALE)	21P	1
C5557	ECUX1H101JCV	C. CAPACITOR CH 50V 100P	1						

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC201	MN5226	IC	1		L321	VL00426J100	COIL	10UH	1
IC202	MN5225	IC	1		L322	VLP0179	COIL		1
IC203	MN2038FAQ	IC	1		L335	VLP0304	COIL		1
IC204	TC7SH04FU	IC	1		L336	VLP0305	COIL		1
IC205	TC7SHU04FU	IC	1		L338	VLP0304	COIL		1
IC206	TC7SH08FU	IC	1		L339	VLP0171	COIL		1
IC207	XC62AS09XXMR	IC	1		L701	VL00319K220	COIL	22UH	1
IC208	TC7SH08FU	IC	1		L703	VL00319F150	COIL	15UH	1
IC210	TC7SH08FU	IC	1		L704	VL00319K220	COIL	22UH	1
IC211	MB87882PFV	IC	1		L1001	VL00759	COIL		1
IC212	TC7SH04FU	IC	1		L1002	VL00760	COIL		1
IC213	AN1358S	IC	1		L1003	VL00763	COIL		1
IC220	TC7SH04FU	IC	1		L1004	VL00319K100	COIL	10UH	1
IC301	MN65761T	IC	1		L1006	VL00319F150	COIL	15UH	1
IC302	CF45814PM	IC	1		L1007	VL00761	COIL		1
IC303	TC9074F	IC	1		L1008	VL00763	COIL		1
IC304	MB88345PFBND	IC	1		L1010	VL00319K100	COIL	10UH	1
IC306	MN67334	IC	1		L1011	VL00319K101	COIL	100UH	1
IC307	MN1866405M8G	IC	1		L1012-14	VL00319K100	COIL	10UH	3
IC308	TA75S393F	IC	1		L1062	VL00762	COIL		1
IC309	TC90A14F	IC	1		L1110	VL00759	COIL		1
IC310	TC7SH04FU	IC	1		L2001	VL00319M1R0	COIL	1UH	1
IC314	AK6480HF	IC	1		L3001	ELJFC101JB	COIL	100UH	1
IC316	TC7SH08FU	IC	1		L3003	VL00426J330	COIL	33UH	1
IC701.02	TB6526F	IC	2		L3005	ELJFA121JB	COIL	120UH	1
IC703	TC4S584F	IC	1		L3006	ELJFC390JB	COIL	39UH	1
IC706	NJM2115VA	IC	1		L3007	ELJFC220JB	COIL	22UH	1
IC711	TA75W01FU	IC	1		L3008	VL00319F150	COIL	15UH	1
IC1001	BA9706K	IC	1		L3009	VL00319K101	COIL	100UH	1
IC2001	TB6518F	IC	1		L3010, 11	VL00319F150	COIL	15UH	2
IC2002.03	UN224	TRANSISTOR-RESISTOR	2		L3012	ELJFA121JB	COIL	120UH	1
IC3001	HA118190AF	IC	1		L3013	VL00426J3R9	COIL	3.9UH	1
IC3002	MS2363VP	IC	1		L3014	VL00426J100	COIL	10UH	1
IC3003	AN3298MSB	IC	1		L3015	ELJFC470JB	COIL	47UH	1
IC3004	MN10248F	IC	1		L3016	VL00319F150	COIL	15UH	1
IC3005	BA7071F	IC	1		L3017	VL00319K101	COIL	100UH	1
IC3006	MN1166AF	IC	1		L4001	VL00319K470	COIL	47UH	1
IC4501	AN3957FHP	IC	1		L4003	VL00319K101	COIL	100UH	1
IC5001	AN3353FHP	IC	1		L4501	VL00319K330	COIL	39UH	1
IC5502	TL8850AF	IC	1		L5001	VL00319K101	COIL	100UH	1
IC6001	MN6755486M8H	IC	1		L5002-04	VL00319F150	COIL	15UH	3
IC6002	S3510ANFJ	IC	1		L5005-07	VL00319K101	COIL	100UH	3
IC6003	UPD64626S614	IC	1		L5501	VL00426J150	COIL	15UH	1
IC6004	RH5RE38AA	IC	1		L5503.04	VL00319F150	COIL	15UH	2
IC6005	BA6289F	IC	1		L5505	ELJFC820JB	COIL	82UH	1
IC6006	TA75W393FU	IC	1		L5506	VL00426J150	COIL	15UH	1
IC6007	TC14S66F	IC	1		L5507	VL00319F150	COIL	15UH	1
IC6008	S2900AUP	IC	1		L5509	ELJFC270JB	COIL	27UH	1
IC6009	PST9133NR	IC	1		L6002	ELJPA101KB	COIL	100UH	1
IC6010	BU4066BCFY	IC	1		L6008	VL00163J330	COIL	33UH	1
IC6011	XC62AP3502PR	IC	1						
L203	ELJFC680JB	COIL	68UH	1	P301	VJP3172D010	CONNECTOR (MALE)	10P	1
L204	VLP0154	COIL		1	PP201	VJP3358C012	CONNECTOR (MALE)	12P	1
L207-09	VL00426J150	COIL	15UH	3	PP302	VJP2962C024	CONNECTOR (MALE)	24P	1
L210.11	VLP0146	COIL		2	PP3001	VJP3358C016	CONNECTOR (MALE)	16P	1
L212	VL00426J150	COIL	15UH	1	PP4002	VJP3358C028	CONNECTOR (MALE)	28P	1
L213	VL00426J220	COIL	22UH	1	PP6001	VJP3358C016	CONNECTOR (MALE)	16P	1
L214	VL00426J100	COIL	10UH	1					
L215	VL00426J1R5	COIL	1.5UH	1	PS1001	VJS2961C024	CONNECTOR (FEMALE)	24P	1
L216	VLP0172	COIL		1					
L217-19	VL00426J150	COIL	15UH	3					
L223	VL00426J150	COIL	15UH	1	Q201	2SD2216	TRANSISTOR		1
L301-03	VL00464K6R8	COIL	6.8UH	3	Q202	2SB1462	TRANSISTOR		1
L304	VL00426J150	COIL	15UH	1	Q203	2SD2216	TRANSISTOR		1
L305	VL00464K6R8	COIL	6.8UH	1	Q206.07	UPA674T	TRANSISTOR		2
L306.07	VL00319F150	COIL	15UH	2	Q301	2SD1030	TRANSISTOR		1
L308-10	VL00464K6R8	COIL	6.8UH	3	Q302.03	XP4601	TRANSISTOR-TRANSISTOR		2
L311	VLP0146	COIL		1	Q305	XP1501	TRANSISTOR-RESISTOR		1
L312	VL00426J150	COIL	15UH	1	Q306	2SC4627	TRANSISTOR		1
L313	VLP0146	COIL		1	Q701	2SD601A	TRANSISTOR		1
L314-17	VL00464K6R8	COIL	6.8UH	4	Q702	2SD2216	TRANSISTOR		1
L318	VL00426J150	COIL	15UH	1	Q703-06	XN4404	TRANSISTOR		4
L319	VL00464K6R8	COIL	6.8UH	1	Q1001	2SA1731-R	TRANSISTOR		1
L320	VL00426J150	COIL	15UH	1	Q1002	2SB798	TRANSISTOR		1
					Q1003	MPL1	TRANSISTOR		1

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q1004	2SD2210	TRANSISTOR	1	
Q1005	2SB1073	TRANSISTOR	1	
Q1009	2SD2216	TRANSISTOR	1	
Q1062	MPL1	TRANSISTOR	1	
Q3001, 02	2SB1462	TRANSISTOR	2	
Q3003	2SD2216	TRANSISTOR	1	
Q3004	2SB1462	TRANSISTOR	1	
Q3006	2SC4627	TRANSISTOR	1	
Q3007, 08	2SD2216	TRANSISTOR	2	
Q3009	2SC4627	TRANSISTOR	1	
Q3010	2SD2216	TRANSISTOR	1	
Q3011	2SB1462	TRANSISTOR	1	
Q3014	2SC4627	TRANSISTOR	1	
Q3015	2SD2216	TRANSISTOR	1	
Q3016	2SB1462	TRANSISTOR	1	
Q3017	2SD2216	TRANSISTOR	1	
Q3018	2SB970X	TRANSISTOR	1	
Q3019	2SA1790	TRANSISTOR	1	
Q4001	XP4501	TRANSISTOR-TRANSISTOR	1	
Q4002	2SD602-R	TRANSISTOR	1	
Q4004	XP4501	TRANSISTOR-TRANSISTOR	1	
Q4005	2SB1219	TRANSISTOR	1	
Q4007	XP4501	TRANSISTOR-TRANSISTOR	1	
Q4501, 02	2SD1979	TRANSISTOR	2	
Q4503	XP4501	TRANSISTOR-TRANSISTOR	1	
Q4505, 06	XP4601	TRANSISTOR-TRANSISTOR	2	
Q5001, 02	UMX20N	TRANSISTOR	2	
Q5005	2SA812	TRANSISTOR	1	
Q5501	2SB1462	TRANSISTOR	1	
Q5502	2SD2216	TRANSISTOR	1	
Q5504	2SD2216	TRANSISTOR	1	
Q5505	2SB1462	TRANSISTOR	1	
Q5509	2SD2216	TRANSISTOR	1	
Q6001, 02	2SD2216	TRANSISTOR	2	
Q6003	2SB1462	TRANSISTOR	1	
Q6005	XP6501	TRANSISTOR	1	
Q6201	2SB1462	TRANSISTOR	1	
QR304, 05	MRN1103	TRANSISTOR-RESISTOR	2	
QR306	XP1212	TRANSISTOR	1	
QR701	MRN1102	TRANSISTOR-RESISTOR	1	
QR702	MRN2102	TRANSISTOR-RESISTOR	1	
QR1001	MRN2102	TRANSISTOR-RESISTOR	1	
QR1012	MRN1104	TRANSISTOR-RESISTOR	1	
QR1061	MRN2111	TRANSISTOR-RESISTOR	1	
QR2002	MRN1111	TRANSISTOR-RESISTOR	1	
QR3002-05	MRN1104	TRANSISTOR-RESISTOR	4	
QR3008, 09	MRN1104	TRANSISTOR-RESISTOR	2	
QR3011	MRN1104	TRANSISTOR-RESISTOR	1	
QR3012, 13	MRN1102	TRANSISTOR-RESISTOR	2	
QR3015, 16	MRN1104	TRANSISTOR-RESISTOR	2	
QR4002	UN9110	TRANSISTOR-RESISTOR	1	
QR4003	MRN2103	TRANSISTOR-RESISTOR	1	
QR4004	XP1215	TRANSISTOR-RESISTOR	1	
QR4009	MRN1104	TRANSISTOR-RESISTOR	1	
QR4501	MRN2111	TRANSISTOR-RESISTOR	1	
QR4502	MRN1103	TRANSISTOR-RESISTOR	1	
QR4503-06	MRN1104	TRANSISTOR-RESISTOR	4	
QR5001	MRN1104	TRANSISTOR-RESISTOR	1	
QR5003	MRN1103	TRANSISTOR-RESISTOR	1	
QR5004	MRN1104	TRANSISTOR-RESISTOR	1	
QR5501	MRN1103	TRANSISTOR-RESISTOR	1	
QR5506	MRN1104	TRANSISTOR-RESISTOR	1	
QR6001	MRN2104	TRANSISTOR-RESISTOR	1	
QR6002	MRN2111	TRANSISTOR-RESISTOR	1	
QR6003	MRN2103	TRANSISTOR-RESISTOR	1	
QR6004	XP4115	TRANSISTOR-RESISTOR	1	
QR6005	MRN1104	TRANSISTOR-RESISTOR	1	
QR6007	MRN1102	TRANSISTOR-RESISTOR	1	
QR6010	XP1213	TRANSISTOR-RESISTOR	1	
QR6011	UN2130X	TRANSISTOR-RESISTOR	1	
QR6014	UN9210	TRANSISTOR-RESISTOR	1	
QR6015	MRN1111	TRANSISTOR-RESISTOR	1	
QR6050	XP1211	TRANSISTOR-RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R201	ERJ2GEJ221	M. RESISTOR CH 2W 220	1	
R202	ERJ2GEJ222	M. RESISTOR CH 2W 2.2K	1	
R203, 04	ERJ2GEJ102	M. RESISTOR CH 2W 1K	2	
R205	ERJ2GEJ681	M. RESISTOR CH 2W 680	1	
R206, 07	ERJ2GEJ102	M. RESISTOR CH 2W 1K	2	
R209-11	ERJ2GEJ103	M. RESISTOR CH 2W 10K	3	
R212	ERJ2GEJ682	M. RESISTOR CH 2W 6.8K	1	
R213	ERJ2GEJ182	M. RESISTOR CH 2W 1.8K	1	
R214	ERJ2GEJ272	M. RESISTOR CH 2W 2.7K	1	
R215	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R216	ERJ2GEJ474	M. RESISTOR CH 2W 470K	1	
R217	ERJ2GEJ682	M. RESISTOR CH 2W 6.8K	1	
R218	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R219	ERJ2GEJ153	M. RESISTOR CH 2W 15K	1	
R220	ERJ2GEJ753	M. RESISTOR CH 2W 75K	1	
R221	ERJ2GEJ104	M. RESISTOR CH 2W 100K	1	
R222	ERJ2GEJ105	M. RESISTOR CH 2W 1M	1	
R223, 24	ERJ3GEYJ2R2	M. RESISTOR CH 1/16W 2.2	2	
R225, 26	ERJ2GEJ393	M. RESISTOR CH 2W 39K	2	
R227, 28	ERJ2GEJ150	M. RESISTOR CH 2W 15	2	
R229, 30	ERJ2GEJ330	M. RESISTOR CH 2W 33	2	
R231, 32	ERJ2GEJ150	M. RESISTOR CH 2W 15	2	
R233, 34	ERJ2GEJ330	M. RESISTOR CH 2W 33	2	
R235	ERJ2GEOR00	M. RESISTOR CH 2W 0	1	
R236	ERJ2GEJ121	M. RESISTOR CH 2W 120	1	
R238	ERJ2GEJ221	M. RESISTOR CH 2W 220	1	
R239	ERJ2GEJ181	M. RESISTOR CH 2W 180	1	
R240	ERJ2GEJ121	M. RESISTOR CH 2W 120	1	
R241	ERJ2GEJ183	M. RESISTOR CH 2W 18K	1	
R242	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R243	ERJ2GEJ332	M. RESISTOR CH 2W 3.3K	1	
R244	ERJ2GEJ183	M. RESISTOR CH 2W 18K	1	
R245	ERJ2GEJ470	M. RESISTOR CH 2W 47	1	
R246	ERJ2GEJ105	M. RESISTOR CH 2W 1M	1	
R247	ERJ2GEJ681	M. RESISTOR CH 2W 680	1	
R248	ERJ2GEJ332	M. RESISTOR CH 2W 3.3K	1	
R249	ERJ2GEOR00	M. RESISTOR CH 2W 0	1	
R250	ERJ2GEJ151	M. RESISTOR CH 2W 150	1	
R251	ERJ2GEJ331	M. RESISTOR CH 2W 330	1	
R252	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1	
R253	ERJ2GEJ123	M. RESISTOR CH 2W 12K	1	
R255	ERJ2GEJ222	M. RESISTOR CH 2W 2.2K	1	
R256	ERJ2GEJ103	M. RESISTOR CH 2W 10K	1	
R257	ERJ2GEJ153	M. RESISTOR CH 2W 15K	1	
R258, 59	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	2	
R260	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R261	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R262	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R265	ERJ2GEJ104	M. RESISTOR CH 2W 100K	1	
R266	ERJ2GEJ473	M. RESISTOR CH 2W 47K	1	
R267, 68	ERJ2GEJ101	M. RESISTOR CH 2W 100	2	
R269	ERJ2GEJ682	M. RESISTOR CH 2W 6.8K	1	
R270	ERJ2GEJ101	M. RESISTOR CH 2W 100	1	
R271	ERJ2GEJ471	M. RESISTOR CH 2W 470	1	
R272	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R273	ERJ2GEJ271	M. RESISTOR CH 2W 270	1	
R274, 75	ERJ2GEJ221	M. RESISTOR CH 2W 220	2	
R276	ERJ2GEJ101	M. RESISTOR CH 2W 100	1	
R277	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R278	ERJ2GEJ473	M. RESISTOR CH 2W 47K	1	
R279	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R281	ERJ2GEJ182	M. RESISTOR CH 2W 1.8K	1	
R282	ERJ2GEOR00	M. RESISTOR CH 2W 0	1	
R283	ERJ2GEJ105	M. RESISTOR CH 2W 1M	1	
R284	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1	
R301	ERJ2GEJ331	M. RESISTOR CH 2W 330	1	
R302	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R304	ERJ2GEOR00	M. RESISTOR CH 2W 0	1	
R305	ERJ2GEJ473	M. RESISTOR CH 2W 47K	1	
R306	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R307	ERJ2GEJ471	M. RESISTOR CH 2W 470	1	
R308	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R309	ERJ2GEJ682	M. RESISTOR CH 2W 6.8K	1	
R310	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R311	ERJ2GEJ563	M. RESISTOR CH 2W 56K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R312	ERJ2GEJ683	M. RESISTOR CH 2W 68K	1		R1020	ERJ2GEJ151	M. RESISTOR CH 2W 150	1	
R313	ERJ2GEJ223	M. RESISTOR CH 2W 22K	1		R1021	ERJ3GEYJ330	M. RESISTOR CH 1/16W 33	1	
R314	ERJ2GEJ333	M. RESISTOR CH 2W 33K	1		R1022	ERJ3GEYJ150	M. RESISTOR CH 1/16W 15	1	
R315	ERJ2GEJ681	M. RESISTOR CH 2W 680	1		R1023	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1	
R316	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1		R1024	ERJ2GEJ470	M. RESISTOR CH 2W 47	1	
R317	ERJ2GEJ471	M. RESISTOR CH 2W 470	1		R1025	ERJ6GEY6102	M. RESISTOR CH 1/10W 1K	1	
R331	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1		R1026	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R332	ERJ2GEJ392	M. RESISTOR CH 2W 3.9K	1		R1027	ERJ3GEYJ151	M. RESISTOR CH 1/16W 150	1	
R333.34	ERJ2GEJ473	M. RESISTOR CH 2W 47K	2		R1035	ERJ2GEJ470	M. RESISTOR CH 2W 47	1	
R335	ERJ2GEJ561	M. RESISTOR CH 2W 560	1		R1038	ERJ3RBD131	M. RESISTOR CH 1/16W 130	1	
R336	ERJ2GEJ473	M. RESISTOR CH 2W 47K	1		R1039	ERJ3RBD151	M. RESISTOR CH 1/16W 150	1	
R337	ERJ3GEY6113	M. RESISTOR CH 1/16W 11K	1		R1040	ERJ3RBD121	M. RESISTOR CH 1/16W 120	1	
R338	ERJ3GEY6183	M. RESISTOR CH 1/16W 18K	1		R1043	ERJ3RBD104	M. RESISTOR CH 1/16W 100K	1	
R339	ERJ2GEJ563	M. RESISTOR CH 2W 56K	1		R1051	ERJ3RBD273	M. RESISTOR CH 1/16W 27K	1	
R340	ERJ3GEYJ335	M. RESISTOR CH 1/16W 3.3M	1		R1052	ERJ3RBD473	M. RESISTOR CH 1/16W 47K	1	
R349	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1		R1057	ERJ2GEJ182	M. RESISTOR CH 2W 1.8K	1	
R367	ERJ2GEJ223	M. RESISTOR CH 2W 22K	1		R1060	ERJ2GEJ392	M. RESISTOR CH 2W 3.9K	1	
R368	ERJ2GEJ103	M. RESISTOR CH 2W 10K	1		R1061	ERJ2GEJ473	M. RESISTOR CH 2W 47K	1	
R371	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1		R1063	ERJ2GEJ103	M. RESISTOR CH 2W 10K	1	
R403.04	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	2		R1065	ERJ2GEJ122	M. RESISTOR CH 2W 1.2K	1	
R406	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1		R1071	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R409.10	ERJ2GEJ105	M. RESISTOR CH 2W 1M	2		R1072	ERJ2GEJ104	M. RESISTOR CH 2W 100K	1	
R411	ERJ2GEJ223	M. RESISTOR CH 2W 22K	1		R1073	ERJ2GEJ101	M. RESISTOR CH 2W 100	1	
R412.13	ERJ2GEJ392	M. RESISTOR CH 2W 3.9K	2		R1085-87	ERJ2GEJ102	M. RESISTOR CH 2W 1K	3	
R414	ERJ2GEJ222	M. RESISTOR CH 2W 2.2K	1		R1089	ERJ6RBB223	M. RESISTOR CH 1/10W 22K	1	
R415	ERJ2GEJ103	M. RESISTOR CH 2W 10K	1		R1090	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1	
R416	ERJ2GEJ473	M. RESISTOR CH 2W 47K	1		R2001	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R425	ERJ2GEJ473	M. RESISTOR CH 2W 47K	1		R2002	ERJ2GEJ224	M. RESISTOR CH 2W 220K	1	
R452	ERJ2GEJ562	M. RESISTOR CH 2W 5.6K	1		R2003	ERJ2GEJ222	M. RESISTOR CH 2W 2.2K	1	
R471	ERJ2GEJ182	M. RESISTOR CH 2W 1.8K	1		R2004	ERJ2GEJ154	M. RESISTOR CH 2W 150K	1	
R472	ERJ2GEJ153	M. RESISTOR CH 2W 15K	1		R2005	ERJ2GEJ392	M. RESISTOR CH 2W 3.9K	1	
R701.02	ERJ3GEYJ3R3	M. RESISTOR CH 1/16W 3.3	2		R2006	ERJ2GEJ474	M. RESISTOR CH 2W 470K	1	
R703	ERJ2GEJ101	M. RESISTOR CH 2W 100	1		R2007	ERJ8GEYJR47	M. RESISTOR CH 1/8W 0.47	1	
R705.06	ERJ3GEYJ2R2	M. RESISTOR CH 1/16W 2.2	2		R2008	ERJ8GEYJR33	M. RESISTOR CH 1/8W 0.33	1	
R707	ERJ2GEJ101	M. RESISTOR CH 2W 100	1		R2009	ERJ2GEJ561	M. RESISTOR CH 2W 560	1	
R708.09	ERJ2GEJ473	M. RESISTOR CH 2W 47K	2		R2010	ERJ2GEJ103	M. RESISTOR CH 2W 10K	1	
R711	ERJ2GEJ333	M. RESISTOR CH 2W 33K	1		R2012	ERJ2GEJ684	M. RESISTOR CH 2W 680K	1	
R712	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1		R2013	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1	
R716	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1		R2015	ERJ2GEJ473	M. RESISTOR CH 2W 47K	1	
R718	ERJ2GEJ223	M. RESISTOR CH 2W 22K	1		R2016	ERJ2GEJ222	M. RESISTOR CH 2W 2.2K	1	
R719	ERJ2GEOR00	M. RESISTOR CH 2W 0	1		R2017	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R720.21	ERJ2GEJ103	M. RESISTOR CH 2W 10K	2		R2018	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R722	ERJ2GEJ104	M. RESISTOR CH 2W 100K	1		R2019.20	ERJ3GEY6471	M. RESISTOR CH 1/16W 470	2	
R723	ERJ2GEJ103	M. RESISTOR CH 2W 10K	1		R2021	ERJ6GEY6101	M. RESISTOR CH 1/10W 100	1	
R724	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1		R2022	ERJ8GEYJR33	M. RESISTOR CH 1/8W 0.33	1	
R726	ERJ3GEY6202	M. RESISTOR CH 1/16W 2K	1		R2040-42	ERJ3GEYJ331	M. RESISTOR CH 1/16W 330	3	
R727	ERJ2GEJ223	M. RESISTOR CH 2W 22K	1		R3001	ERJ2GEJ103	M. RESISTOR CH 2W 10K	1	
R728	ERJ2GEJ273	M. RESISTOR CH 2W 27K	1		R3002.03	ERJ2GEJ102	M. RESISTOR CH 2W 1K	2	
R729	ERJ2GEJ183	M. RESISTOR CH 2W 18K	1		R3004	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	1	
R730	ERJ2GEJ103	M. RESISTOR CH 2W 10K	1		R3005	ERJ3GEY6471	M. RESISTOR CH 1/16W 470	1	
R731.32	ERJ2GEJ473	M. RESISTOR CH 2W 47K	2		R3006	ERJ2GEJ222	M. RESISTOR CH 2W 2.2K	1	
R733	ERJ2GEJ224	M. RESISTOR CH 2W 220K	1		R3007	ERJ2GEJ473	M. RESISTOR CH 2W 47K	1	
R734.35	ERJ2GEJ123	M. RESISTOR CH 2W 12K	2		R3009	ERJ2GEJ392	M. RESISTOR CH 2W 3.9K	1	
R736	ERJ2GEJ824	M. RESISTOR CH 2W 820K	1		R3013	ERJ2GEJ332	M. RESISTOR CH 2W 3.3K	1	
R737	ERJ2GEJ221	M. RESISTOR CH 2W 220	1		R3014	ERJ2GEJ221	M. RESISTOR CH 2W 220	1	
R738	ERJ2GEJ104	M. RESISTOR CH 2W 100K	1		R3016	ERJ3GEY6152	M. RESISTOR CH 1/16W 1.5K	1	
R739	ERJ2GEJ153	M. RESISTOR CH 2W 15K	1		R3017	ERJ3GEY6682	M. RESISTOR CH 1/16W 6.8K	1	
R740	ERJ2GEJ333	M. RESISTOR CH 2W 33K	1		R3019	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R741	ERJ2GEJ474	M. RESISTOR CH 2W 470K	1		R3020	ERJ2GEJ152	M. RESISTOR CH 2W 1.5K	1	
R761	ERJ2GEJ272	M. RESISTOR CH 2W 2.7K	1		R3021	ERJ2GEJ471	M. RESISTOR CH 2W 470	1	
R1001	ERJ6RBB822	M. RESISTOR CH 1/10W 8.2K	1		R3022	ERJ2GEJ511	M. RESISTOR CH 2W 510	1	
R1002	ERJ6RBB272	M. RESISTOR CH 1/10W 2.7K	1		R3023	ERJ2GEJ332	M. RESISTOR CH 2W 3.3K	1	
R1003	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1		R3024-26	ERJ2GEJ102	M. RESISTOR CH 2W 1K	3	
R1004	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1		R3029	ERJ2GEJ474	M. RESISTOR CH 2W 470K	1	
R1005	ERJ6RBB472	M. RESISTOR CH 1/10W 4.7K	1		R3030	ERJ2GEJ222	M. RESISTOR CH 2W 2.2K	1	
R1006	ERJ6RBB272	M. RESISTOR CH 1/10W 2.7K	1		R3031	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R1007	ERJ8GEYJ330	M. RESISTOR CH 1/8W 33	1		R3033.34	ERJ2GEJ102	M. RESISTOR CH 2W 1K	2	
R1009	ERJ6RBB152	M. RESISTOR CH 1/10W 1.5K	1		R3035	ERJ2GEJ271	M. RESISTOR CH 2W 270	1	
R1012	ERJ6RBB1582	M. RESISTOR CH 1/10W	1		R3036	ERJ2GEJ222	M. RESISTOR CH 2W 2.2K	1	
R1013	ERJ6RBB393	M. RESISTOR CH 1/10W 39K	1		R3037.38	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	2	
R1014.15	ERJ6RBB182	M. RESISTOR CH 1/10W 1.8K	2		R3039	ERJ2GEJ392	M. RESISTOR CH 2W 3.9K	1	
R1016	ERJ3RBD153	M. RESISTOR CH 1/16W 15K	1		R3040	ERJ2GEJ562	M. RESISTOR CH 2W 5.6K	1	
R1017	ERJ6GEY6102	M. RESISTOR CH 1/10W 1K	1		R3041	ERJ2GEJ273	M. RESISTOR CH 2W 27K	1	
R1018	ERJ2GEJ151	M. RESISTOR CH 2W 150	1		R3042	ERJ2GEJ183	M. RESISTOR CH 2W 18K	1	
R1019	ERJ6GEY6102	M. RESISTOR CH 1/10W 1K	1		R3043	ERJ2GEJ822	M. RESISTOR CH 2W 8.2K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3044	ERJ2GEJ182	M. RESISTOR CH 2W 1.8K	1	
R3045	ERJ2GEJ682	M. RESISTOR CH 2W 6.8K	1	
R3047	ERJ2GEJ272	M. RESISTOR CH 2W 2.7K	1	
R3048	ERJ2GEJ561	M. RESISTOR CH 2W 560	1	
R3049	ERJ2GEJ203	M. RESISTOR CH 2W 20K	1	
R3050	ERJ2GEOR00	M. RESISTOR CH 2W 0	1	
R3052	ERJ2GEJ222	M. RESISTOR CH 2W 2.2K	1	
R3053	ERJ2GEJ392	M. RESISTOR CH 2W 3.9K	1	
R3054	ERJ2GEJ152	M. RESISTOR CH 2W 1.5K	1	
R3058	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R3059	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	1	
R3060	ERJ3GEYG332	M. RESISTOR CH 1/16W 3.3K	1	
R3061	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	1	
R3062	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R3063	ERJ2GEJ562	M. RESISTOR CH 2W 5.6K	1	
R3064	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R3065	ERJ2GEJ123	M. RESISTOR CH 2W 12K	1	
R3066-69	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	4	
R3070, 71	ERJ2GEOR00	M. RESISTOR CH 2W 0	2	
R3073	ERJ2GEJ681	M. RESISTOR CH 2W 680	1	
R3074	ERJ2GEJ152	M. RESISTOR CH 2W 1.5K	1	
R3075-77	ERJ2GEJ680	M. RESISTOR CH 2W 68	3	
R3078	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R3079	ERJ2GEJ225	M. RESISTOR CH 2W 2.2K	1	
R3080, 81	ERJ2GEJ102	M. RESISTOR CH 2W 1K	2	
R3082, 83	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	2	
R3084	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1	
R3085	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R3086	ERJ2GEJ271	M. RESISTOR CH 2W 270	1	
R3087	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R3090	ERJ2GEJ224	M. RESISTOR CH 2W 220K	1	
R3091	ERJ2GEJ123	M. RESISTOR CH 2W 12K	1	
R3092	ERJ2GEJ224	M. RESISTOR CH 2W 220K	1	
R3093	ERJ2GEJ104	M. RESISTOR CH 2W 100K	1	
R3094	ERJ2GEJ470	M. RESISTOR CH 2W 47	1	
R3095	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R3096	ERJ2GEJ223	M. RESISTOR CH 2W 22K	1	
R3097	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R3098	ERJ2GEJ272	M. RESISTOR CH 2W 2.7K	1	
R3100	ERJ2GEJ105	M. RESISTOR CH 2W 1M	1	
R3110, 11	ERJ2GEJ152	M. RESISTOR CH 2W 1.5K	2	
R3112	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R3113	ERJ2GEJ682	M. RESISTOR CH 2W 6.8K	1	
R3114	ERJ2GEJ222	M. RESISTOR CH 2W 2.2K	1	
R3115	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R3116	ERJ2GEJ392	M. RESISTOR CH 2W 3.9K	1	
R3117	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R3118	ERJ2GEJ821	M. RESISTOR CH 2W 820	1	
R3119	ERJ2GEJ122	M. RESISTOR CH 2W 1.2K	1	
R3120	ERJ2GEJ391	M. RESISTOR CH 2W 390	1	
R3122	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R3123	ERJ2GEOR00	M. RESISTOR CH 2W 0	1	
R3130	ERJ2GEJ272	M. RESISTOR CH 2W 2.7K	1	
R3131	ERJ2GEJ821	M. RESISTOR CH 2W 820	1	
R3132	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R3133	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R3134, 35	ERJ2GEJ222	M. RESISTOR CH 2W 2.2K	2	
R3136	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R4001	ERJ2GEJ100	M. RESISTOR CH 2W 10	1	
R4002	ERJ2GEJ333	M. RESISTOR CH 2W 33K	1	
R4003	ERJ2RHD271	M. RESISTOR CH 2W 270	1	
R4004	ERJ2GEJ334	M. RESISTOR CH 2W 330K	1	
R4005	ERJ2RHD682	M. RESISTOR CH 2W 6.8K	1	
R4006	ERJ2GEJ823	M. RESISTOR CH 2W 82K	1	
R4007	ERJ2GEJ563	M. RESISTOR CH 2W 56K	1	
R4008	ERJ3RBD133	M. RESISTOR CH 1/16W 13K	1	
R4009	ERJ2GEJ153	M. RESISTOR CH 2W 15K	1	
R4012	ERJ2GEJ391	M. RESISTOR CH 2W 390	1	
R4015, 16	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	2	
R4018	ERJ3GEYJ820	M. RESISTOR CH 1/16W 82	1	
R4019	ERJ2GEJ184	M. RESISTOR CH 2W 180K	1	
R4020	ERJ2GEJ223	M. RESISTOR CH 2W 22K	1	
R4021	ERJ2GEJ331	M. RESISTOR CH 2W 330	1	
R4022	ERJ2GEJ272	M. RESISTOR CH 2W 2.7K	1	
R4023	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4024	ERJ2GEJ680	M. RESISTOR CH 2W 68	1	
R4025	ERJ2GEJ334	M. RESISTOR CH 2W 330K	1	
R4026	ERJ2GEJ684	M. RESISTOR CH 2W 680K	1	
R4027	ERJ2GEJ334	M. RESISTOR CH 2W 330K	1	
R4028	ERJ2GEJ684	M. RESISTOR CH 2W 680K	1	
R4029, 30	ERJ2GEJ334	M. RESISTOR CH 2W 330K	2	
R4501	ERJ2GEJ105	M. RESISTOR CH 2W 1M	1	
R4502, 03	ERJ2GEJ511	M. RESISTOR CH 2W 510	2	
R4504, 05	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	2	
R4506	ERJ2GEJ333	M. RESISTOR CH 2W 33K	1	
R4510, 11	ERJ2GEJ183	M. RESISTOR CH 2W 18K	2	
R4512, 13	ERJ2GEJ562	M. RESISTOR CH 2W 5.6K	2	
R4516	ERJ3RBD153	M. RESISTOR CH 1/16W 15K	1	
R4517	ERJ3RBD123	M. RESISTOR CH 1/16W 12K	1	
R4518	ERJ2GEJ332	M. RESISTOR CH 2W 3.3K	1	
R4519	ERJ2GEJ821	M. RESISTOR CH 2W 820	1	
R4520	ERJ2GEJ394	M. RESISTOR CH 2W 390K	1	
R4521	ERJ2GEJ561	M. RESISTOR CH 2W 560	1	
R4524	ERJ2GEJ124	M. RESISTOR CH 2W 120K	1	
R4525	ERJ2GEJ681	M. RESISTOR CH 2W 680	1	
R4526, 27	ERJ2GEJ822	M. RESISTOR CH 2W 8.2K	2	
R4528, 29	ERJ2GEJ561	M. RESISTOR CH 2W 560	2	
R4530, 31	ERJ2GEJ124	M. RESISTOR CH 2W 120K	2	
R4536	ERJ2GEJ681	M. RESISTOR CH 2W 680	1	
R4537	ERJ2GEJ333	M. RESISTOR CH 2W 33K	1	
R4538	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R4541	ERJ2GEJ333	M. RESISTOR CH 2W 33K	1	
R4542	ERJ2GEJ183	M. RESISTOR CH 2W 18K	1	
R4543, 44	ERJ2GEJ182	M. RESISTOR CH 2W 1.8K	2	
R4545, 46	ERJ2GEJ102	M. RESISTOR CH 2W 1K	2	
R4553, 54	ERJ2GEJ471	M. RESISTOR CH 2W 470	2	
R4567, 68	ERJ2GEJ103	M. RESISTOR CH 2W 10K	2	
R4569	ERJ2GEJ332	M. RESISTOR CH 2W 3.3K	1	
R4570	ERJ2GEJ822	M. RESISTOR CH 2W 8.2K	1	
R4571	ERJ2GEJ332	M. RESISTOR CH 2W 3.3K	1	
R4575, 76	ERJ2GEJ332	M. RESISTOR CH 2W 3.3K	2	
R4577, 78	ERJ2GEJ681	M. RESISTOR CH 2W 680	2	
R4579, 80	ERJ2GEJ102	M. RESISTOR CH 2W 1K	2	
R4583	ERJ2GEJ103	M. RESISTOR CH 2W 10K	1	
R5001	ERJ3RBD113	M. RESISTOR CH 1/16W 11K	1	
R5002, 03	ERJ3GEYJ270	M. RESISTOR CH 1/16W 27	2	
R5004, 05	ERJ3GEYJ100	M. RESISTOR CH 1/16W 10	2	
R5006	ERJ2GEJ103	M. RESISTOR CH 2W 10K	1	
R5007	ERJ2GEJ393	M. RESISTOR CH 2W 39K	1	
R5008	ERJ2GEJ103	M. RESISTOR CH 2W 10K	1	
R5009	ERJ2GEJ393	M. RESISTOR CH 2W 39K	1	
R5010	ERJ2GEJ332	M. RESISTOR CH 2W 3.3K	1	
R5011	ERJ2GEJ272	M. RESISTOR CH 2W 2.7K	1	
R5012	ERJ2GEJ103	M. RESISTOR CH 2W 10K	1	
R5013	ERJ2GEJ561	M. RESISTOR CH 2W 560	1	
R5014	ERJ3GEYJ4R7	M. RESISTOR CH 1/16W 4.7	1	
R5016	ERJ2GEOR00	M. RESISTOR CH 2W 0	1	
R5017	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R5020	ERJ2GEJ153	M. RESISTOR CH 2W 15K	1	
R5502	ERJ2GEOR00	M. RESISTOR CH 2W 0	1	
R5503	ERJ2GEJ333	M. RESISTOR CH 2W 33K	1	
R5504	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R5505	ERJ2GEJ333	M. RESISTOR CH 2W 33K	1	
R5506	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R5507	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R5508	ERJ2GEJ125	M. RESISTOR CH 2W 1.2M	1	
R5509	ERJ2GEJ102	M. RESISTOR CH 2W 1K	1	
R5511	ERJ2GEJ332	M. RESISTOR CH 2W 3.3K	1	
R5512	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R5513	ERJ2GEJ392	M. RESISTOR CH 2W 3.9K	1	
R5514	ERJ2GEJ122	M. RESISTOR CH 2W 1.2K	1	
R5515	ERJ2GEJ912	M. RESISTOR CH 2W 9.1K	1	
R5516	ERJ2GEOR00	M. RESISTOR CH 2W 0	1	
R5517, 18	ERJ2GEJ473	M. RESISTOR CH 2W 47K	2	
R5519	ERJ2GEJ274	M. RESISTOR CH 2W 270K	1	
R5520, 21	ERJ2GEJ473	M. RESISTOR CH 2W 47K	2	
R5522	ERJ2GEJ821	M. RESISTOR CH 2W 820	1	
R5523	ERJ2GEJ272	M. RESISTOR CH 2W 2.7K	1	
R5524	ERJ2GEJ472	M. RESISTOR CH 2W 4.7K	1	
R5525	ERJ2GEJ274	M. RESISTOR CH 2W 270K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C801	ECQV1H104JL	P. CAPACITOR 50V 0.1U	1	
C802-04	ECUM1G105ZFN	G. CAPACITOR CH 16V 1U	3	
C805	ECEA0JKE221	E. CAPACITOR 6.3V 220U	1	
C806	ECUX1G123KBV	G. CAPACITOR CH 16V 0.012U	1	
C807	ECUM1G105KBM	G. CAPACITOR CH 16V 1U	1	
C808	ECST0JX476Z	T. CAPACITOR CH 6.3V 47U	1	
C809	ECA1CKF470	E. CAPACITOR 16V 47U	1	
C810	ECUM2A512JUM	G. CAPACITOR CH 100V 5100P	1	
C811	ECEA0JKE221	E. CAPACITOR 6.3V 220U	1	
C812	ECUX1H103JCV	G. CAPACITOR CH 50V 18P	1	
C813	ECUM2J221KBM	G. CAPACITOR CH 630V 220P	1	
C814	ECEA1HSN010	E. CAPACITOR 50V 1U	1	
C815	ECUM2H331KBM	G. CAPACITOR CH 500V 330P	1	
C816	ECUM1H104ZFN	G. CAPACITOR CH 50V 0.1U	1	
C817	ECUM2A331JUM	G. CAPACITOR CH 100V 330P	1	
C818	ECUX1H390JCV	G. CAPACITOR CH 50V 39P	1	
C831	ECUM1H104ZFN	G. CAPACITOR CH 50V 0.1U	1	
C861	ECUX1H103KBV	G. CAPACITOR CH 50V 0.01U	1	
C862	ECUX1H152KBV	G. CAPACITOR CH 50V 1500P	1	
C863	ECUX1H682KBV	G. CAPACITOR CH 50V 6800P	1	
C1603	ECEY1CA220	E. CAPACITOR CH 16V 22U	1	
C1703	ECEVOJG1012P	E. CAPACITOR CH 6.3V 100U	1	
C1704	ECEVOJA101	E. CAPACITOR CH 6.3V 100U	1	
C1705	ECST1AD476Z	T. CAPACITOR CH 10V 47U	1	
C1706	ECEVOJA101	E. CAPACITOR CH 6.3V 100U	1	
C1708	ECEVO5A470	E. CAPACITOR CH 4V 47U	1	
C1709	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1	
C1710	ECST1AX156Z	T. CAPACITOR CH 10V 15U	1	
D803	MA142WA	DIODE	1	
D1601	MA8130M	DIODE	1	
D1603	MA8130M	DIODE	1	
D1702	EC100S04	DIODE	1	
D1705	MA141K	DIODE	1	
IC801	AN2516S	IC	1	
IC1701	RN5RG37AA	IC	1	
IC1702	RH5RH492B	IC	1	
J1601	VEK7724	RFU	1	
L802	ELH5L244	COIL	1	
L804	VL00163J680	COIL 68UH	1	
L805	VL00319K100	COIL 100UH	1	
L806	VL00426J330	COIL 33UH	1	
L807	VL00319K330	COIL 39UH	1	
L1601.02	VL00307	COIL	2	
L1701	VL00770	COIL	1	
L1702	ELL04T044R	COIL 1000UH	1	
L1703	VL00770	COIL	1	
P801	VJP1597T	CONNECTOR (MALE) 4P	1	
P803	VJP1596T	CONNECTOR (MALE) 3P	1	
P804	VJP1242T	CONNECTOR (MALE) 2P	1	
P1601	VJP3125B002	CONNECTOR (MALE) 2P	1	
PP1601	VJP3126B024	CONNECTOR (MALE) 24P	1	
Q801	2S81462	TRANSISTOR	1	
Q802	2SD0968A-S	TRANSISTOR	1	
Q803.04	2SA1748	TRANSISTOR	2	
Q805.06	2SD2216	TRANSISTOR	2	
Q1705	2S81202-S	TRANSISTOR	1	
Q1706	2SD1119	TRANSISTOR	1	
QR881	UN5212	TRANSISTOR-RESISTOR	1	
QR882	UN2130X	TRANSISTOR-RESISTOR	1	
QR1702.03	UN521F	TRANSISTOR	2	
QR1704	UN5112	TRANSISTOR-RESISTOR	1	
R801	ERJ6ENF4422	M. RESISTOR CH 1/10W 44.2K	1	
R802	ERJ6GEYJ3R9	M. RESISTOR CH 1/10W 3.9	1	
R803	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R804	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1	
R805	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R806	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1	
R807	ERJ3GEYJ150	M. RESISTOR CH 1/16W 15	1	
R808	VRE0071E242	M. RESISTOR CH 1/10W 2.4K	1	
R809	ERJ3GEYJ564	M. RESISTOR CH 1/16W 560K	1	
R810	VRE0071E104	M. RESISTOR CH 1/10W 100K	1	
R811	ERJ3GEYJ684	M. RESISTOR CH 1/16W 680K	1	
R815	ERJ3GEYJ102	M. RESISTOR CH 1/16W 1K	1	
R816.17	ERJ3GEYJ6472	M. RESISTOR CH 1/16W 4.7K	2	
R818	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R819.20	ERJ6GEYJ275	M. RESISTOR CH 1/10W 2.7W	2	
R821	ERJ6GEYJ105	M. RESISTOR CH 1/10W 1M	1	
R823	ERJ3GEYJ120	M. RESISTOR CH 1/16W 12	1	
R829	ERJ6ENF4222	M. RESISTOR CH 1/10W 42.2K	1	
R834	ERJ3GEYJ122	M. RESISTOR CH 1/16W 1.2K	1	
R835	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R840	ERJ8GEYJ305	M. RESISTOR CH 1/8W 3W	1	
R841.42	ERD21LLJ225	G. RESISTOR 1/8W 2.2W	2	
R843	ERJ3GEYJ334	M. RESISTOR CH 1/16W 330K	1	
R844	ERJ3GEYJ390	M. RESISTOR CH 1/16W 39	1	
R845	ERJ3GEYJ221	M. RESISTOR CH 1/16W 220	1	
R850	VRE0071E822	M. RESISTOR CH 1/10W 8.2K	1	
R851	VRE0071E392	M. RESISTOR CH 1/10W 3.9K	1	
R852	ERJ6GEYF822	M. RESISTOR CH 1/10W 8.2K	1	
R853	ERJ6GEYJ103	M. RESISTOR CH 1/10W 10K	1	
R855	ERJ3GEYJ151	M. RESISTOR CH 1/16W 150	1	
R861	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R862	ERJ3GEYJ182	M. RESISTOR CH 1/16W 1.8K	1	
R863	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	1	
R864	ERJ3GEYJ391	M. RESISTOR CH 1/16W 390	1	
R883	ERJ3GEYJ472	M. RESISTOR CH 1/16W 4.7K	1	
▲R1601	VSF0092	FUSE	1	
R1602	ERJ3GEYJ474	M. RESISTOR CH 1/16W 470K	1	
R1603	ERJ3GEYJ564	M. RESISTOR CH 1/16W 560K	1	
R1690	ERJ3GEYJ683	M. RESISTOR CH 1/16W 68K	1	
R1699	ERJ3GEYJ181	M. RESISTOR CH 1/16W 180	1	
R1720.21	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
R1722	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
R1723	ERJ3GEYJ471	M. RESISTOR CH 1/16W 470	1	
R1724	ERJ3GEYJ123	M. RESISTOR CH 1/16W 12K	1	
R1725	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
R1726	ERJ3GEYJ622	M. RESISTOR CH 1/16W 6.2K	1	
R1727	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	1	
R1731	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	1	
R1732	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	1	
S801	VEE9711	CRT SOCKET	1	
SW1695	VSS00851	SWITCH	1	
SW1696	VSS0392	SWITCH	1	
T801	ECXC2802B	TRANSFORMER	1	
VR801	EVM7JGA00BE2	V. RESISTOR 220	1	
VR803	EVM7LGA00BV6	V. RESISTOR	1	
VR804	EVM7BSX30B26	V. RESISTOR 2M	1	
Z1601	VL2020/1HF	LITHIUM BATTERY	1	
		MISCELLANEOUS		
	VMP4952	DC JACK EARTH ANGLE	1	
	VSC4438	SHIELD COVER (TOP)	1	
	VSC4439	SHIELD COVER (BOTTOM)	1	
■	VEP22250C	CCD FLEX. CARD C.B.A.	(RTL)	
PS291	VJS3500C012	CONNECTOR (FEMALE) 12P	1	
C292	ECST1VX225Z	T. CAPACITOR CH 35V 2.2U	1	
C293.94	ECUM1H473KBN	G. CAPACITOR CH 50V 0.047U	2	
C295	ECUM1E104ZFN	G. CAPACITOR CH 25V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks	Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D291	MA153	DIODE	1		R4808.09	ERJ3GEYJ183	M. RESISTOR CH 1/16W 18K	2	
Q291	2SC2295	TRANSISTOR	1		R4810.11	ERJ3GEYJ124	M. RESISTOR CH 1/16W 120K	2	
R291	ERJ6GEYG560	M. RESISTOR CH 1/10W 56	1		R4812.13	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	2	
R292	ERJ6GEYF472	M. RESISTOR CH 1/10W 4.7K	1		R4814.15	ERJ3GEYJ392	M. RESISTOR CH 1/16W 3.9K	2	
W291	ERJ6GEYOR00	M. RESISTOR CH 1/10W 0	1		R4816.17	ERJ3GEYJ821	M. RESISTOR CH 1/16W 820	2	
		MISCELLANEOUS			R4818.19	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	2	
	VJB22250	FLEX. CARD	1		R4820.21	ERJ6GEYG154	M. RESISTOR CH 1/10W 150K	2	
	■ VEK7799	LENS FLEX. CARD C.B.A.	(RTL)		R4822.23	ERJ6GEYG563	M. RESISTOR CH 1/10W 56K	2	
		MISCELLANEOUS			R4824.25	ERJ3GEYJ103	M. RESISTOR CH 1/16W 10K	2	
	ON1004-R	PHOTO INTERRUPTER	1		R4826.27	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	2	
	SG-211S	PHOTO INTERRUPTER	1		R4828.29	ERJ3GEYJ562	M. RESISTOR CH 1/16W 5.6K	2	
	■ VEK7839	MIC UNIT	(RTL)		R4830.31	ERJ3GEYJ181	M. RESISTOR CH 1/16W 180	2	
C3603.04	ECUX1H222KBV	C. CAPACITOR CH 50V 2200P	2		R4832	ERJ3GEYG472	M. RESISTOR CH 1/16W 4.7K	1	
C3605.06	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	2		R4833	ERJ3GEYJ223	M. RESISTOR CH 1/16W 22K	1	
C4520.21	ECEY05A470	E. CAPACITOR CH 4V 47U	2		R4834	ERJ3GEYJ333	M. RESISTOR CH 1/16W 33K	1	
C4801-03	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	3		R4835.36	ERJ3GEYJ222	M. RESISTOR CH 1/16W 2.2K	2	
C4804.05	ECUX1C333KBV	C. CAPACITOR CH 16V 0.033U	2		R4851.52	ERJ3GEYG471	M. RESISTOR CH 1/16W 470	2	
C4806.07	ECUM1C823KBN	C. CAPACITOR CH 16V 0.082U	2		R6801	ERJ3GEYJ330	M. RESISTOR CH 1/16W 33	1	
C4808.09	ECUX1H820JCV	C. CAPACITOR CH 50V 82P	2		R6802	ERJ3GEYJ101	M. RESISTOR CH 1/16W 100	1	
C4810.11	ECUM1C224KBN	C. CAPACITOR CH 16V 0.22U	2		R6803	ERJ6GEYG181	M. RESISTOR CH 1/10W 180	1	
C4812.13	ECUM1C823KBN	C. CAPACITOR CH 16V 0.082U	2		R6804.05	ERJ3GEYG102	M. RESISTOR CH 1/16W 1K	2	
C4814.15	ECUM1C563KBV	C. CAPACITOR CH 16V 0.056U	2		S6801	EVQPA601K	SWITCH	1	
C4816.17	ECST1CY105Z	T. CAPACITOR CH 16V 1U	2		S6802	VSSQ392	SWITCH	1	
C4818.19	ECUX1H102KBV	C. CAPACITOR CH 50V 1000P	2				MISCELLANEOUS		
C4822	ECEY05A470	E. CAPACITOR CH 4V 47U	1			VG04237	FRONT C.B.A. HOLDER	1	
C4823	ECUX1C473KBV	C. CAPACITOR CH 16V 0.047U	1			VHD0687	SCREW	1	
C4824	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1		■ VEPO0X548		EJECT C.B.A.	(RTL)	
C4853.54	ECUX1H222KBV	C. CAPACITOR CH 50V 2200P	2		SW511	ESD165236	SWITCH	1	
C4855	ECUM1H473KBN	C. CAPACITOR CH 50V 0.047U	1		■ VEPO0V80A		S/S C.B.A.	(RTL)	
C6801	ECST0JY106Z	T. CAPACITOR CH 6.3V 10U	1		S6702	ESE103119	SWITCH	1	
C6802.03	ECUX1H103KBV	C. CAPACITOR CH 50V 0.01U	2		■ VEP03D49A		S/EDIT C.B.A.	(RTL)	
C6804	ECUX1C473KBV	C. CAPACITOR CH 16V 0.047U	1		C3651	ECUX1H821KBN	C. CAPACITOR CH 50V 820P	1	
D6801	CL150UR	DIODE	1		C3652	ECUM1H473KBN	C. CAPACITOR CH 50V 0.047U	1	
D6802	PH310-1		1		FP3651	VJS2130	CONNECTOR (FEMALE)	1	
FP4803	VJS3452A020	CONNECTOR (FEMALE) 20P	1		JK3651	VEJ1722	JACK	1	
IC4801	BA14741F	IC	1				MISCELLANEOUS		
IC6801	GP1U102X	IC	1			VMP5124	EARTH ANGLE	1	
JK3601	VJJ0524	JACK	1			VEE9927	WIRE CABLE	1	
JK4851	VJJ0414	MTC JACK	1		■ VXP1790		MF RING U.	(RTL)	
L3604	VLP0171	COIL	1		PC710.11	SG-211S	PHOTO INTERRUPTER	2	
L3608	VL00584	COIL	1				MISCELLANEOUS		
P4801	VJP3125B004	CONNECTOR (MALE) 4P	1			VEE9303	WIRE CABLE	1	
PP4802	VJP2963C018	CONNECTOR (MALE) 18P	1						
PS4801	VJS2961A018	CONNECTOR (FEMALE) 18P	1						
PS4851	VJS3500A028	CONNECTOR (FEMALE) 28P	1						
Q4801.02	XP4601	TRANSISTOR-TRANSISTOR	2						
Q4803	XP4501	TRANSISTOR-TRANSISTOR	1						
R3601.02	ERJ36EYJ331	M. RESISTOR CH 1/16W 330	2						
R4801-03	ERJ66EYG332	M. RESISTOR CH 1/10W 3.3K	3						
R4804	ERJ36EYJ153	M. RESISTOR CH 1/16W 15K	1						
R4805	ERJ36EYJ393	M. RESISTOR CH 1/16W 39K	1						
R4806	ERJ36EYJ153	M. RESISTOR CH 1/16W 15K	1						
R4807	ERJ36EYJ393	M. RESISTOR CH 1/16W 39K	1						

Service Manual

Video Product

Model No. NV-SX3EG/B

Supplement

Effective from: First Production

Subject: Correction of Parts List

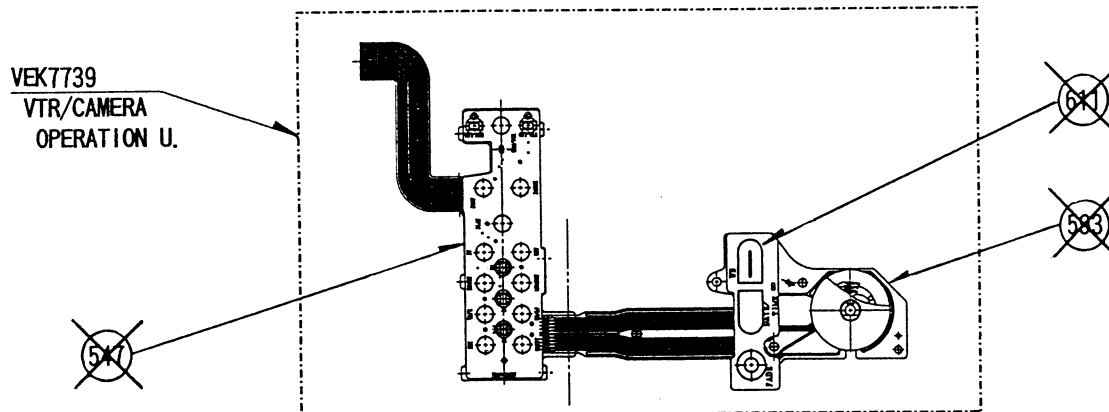
Please use this service manual together with the service manual for Order No. VMD9606M135.
Model NO. NV-SX3EG/B.

Please correct the Parts List as follows.

INTERCHANGEABILITY CODE See the I/C column on the following Part Number list													
A	Parts	Prdctn	B	Parts	Prdctn	C	Parts	Prdctn	D	Parts	Prdctn	E	Addition
	Orgnl	Early		Orgnl	Early		Orgnl	Early		Orgnl	Early	F	Deletion
	New	Late		New	Late		New	Late		New	Late	G	Other
Parts Number List													
Ref.No.	Original Part NO.		New Part No.		Part Name & Description			I/C	Remarks				
547	VEK7739		-----		VTR OPERATION U.			F					
593	VEK7880		-----		CAMERA OPERATION U.			F					
611	VMG0999		-----		CAMERA OPERATION BUTTON			F					
---	-----		VEK7739		VTR/CAMERA OPERATION U.			E					

Note: VEK7739 is included VTR OP., CAMERA OP. and CAMERA OP. BUTTON.

Please refer to following.



WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

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Printed in Japan

V16677

Order no. VMD9612S027

Service Manual

Video Product

Model No:NV-SX3EG/B

Supplement

Effective from : First Production

Subject : Correction of Service Manual

Please use this service manual together with the service manual for Order No.VMD9606M135
Model No. NV-SX3EG/B

Interchangeability Code				See the I/C column on the following Part Number list.									
A	Parts	Production	B	Parts	Production	C	Parts	Production	D	Parts	Production	E	Addition
	Original	Early		Original	Early		Original	Early		Original	Early	F	Deletion
	New	Late		New	Late		New	Late		New	Late	G	Other
Part Number													
Ref. No.	Original Part No.		New Part No.		Part Name & Description			I/C	Remarks				
606(5)	VGQ4223		VGQ4233		DIS KNOB HOLDER			G					

Service Manual

Supplement

Video Product

Effective from : Running Change

Model No: Mentioned below

Subject : Improvement of Performance

Please use this service manual together with the service manual for Order No. Mentioned Below.

NV-RX1EG/B/A/EN
 NV-RX2EG/B/EN/A
 NV-RX3A/EN
 NV-RX5EG/B
 NV-RX6EN/ENH
 NV-RX100F
 NV-RX200F
 NV-RX500F
 NV-RX7EG/EN/A/EE
 NV-VX7A/EN/EE
 NV-RX600F
 NV-VX5EG/B/A/EN
 NV-VX1EG/B/A/EN
 NV-SX3EG/B
 NV-VX3EG/A/EN

VMD9512M136
 VMD9601M108
 VMD9604M125
 VMD9601M101
 VMD9603M116
 VMD9602M110
 VMD9602M112
 VMD9604M121
 VMD9603M118
 VMD9604M119
 VMD9604M123
 VMD9606M133
 VMD9606M138
 VMD9606M135
 VMD9606M138

Interchangeability Code				See the I/C column on the following Part Number list.									
A	Parts	Production	B	Parts	Production	C	Parts	Production	D	Parts	Production	E	Addition
	Original	Early		Original	Early		Original	Early		Original	Early	F	Deletion
	New	Late		New	Late		New	Late		New	Late	G	Other
Part Number													
Ref. No.	Original Part No.	New Part No.	Part Name & Description				I/C	Remarks					
508	VYK6857	VYK7731	SIDEL CASE L 1(U)				A	For NV-RX1EG/B/A/EN,NV-RX3A/EN, and NV-RX2EG/B/A					
508	VYK7036	VYK7738	SIDEL CASE L 1(U)				A	For NV-RX6EN/ENH					
508	VYK7071	VYK7742	SIDEL CASE L 1(U)				A	For NV-RX100F/RX200F/RX500F					
508	VYK7135	VYK7739	SIDEL CASE L 1(U)				A	For NV-RX7EG/EN/A/EE					
501	VYK7168	VYK7741	SIDEL CASE L 1(U)				A	For NV-VX7A/EN/EE					
508	VYK7139	VYK7745	SIDEL CASE L 1(U)				A	For NV-RX600F					
501	VYK7278	VYK7746	SIDEL CASE L 1(U)				A	For NV-VX5EG/B/A/EN,NV-VX1EG/B/A/EN					
508	VYK7220	VYK7748	SIDEL CASE L 1(U)				A	For NV-SX3EG/B					
501	VYK7421	VYK7754	SIDEL CASE L 1(U)				A	For NV-VX3EG/A/EN					

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

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Printed in Japan

V16677

Order no. VMD9704001S2

Service Manual

Supplement

Effective from : Running Change

Video Product

Model No. NV-SX3EG/B

Subject : Improvement of Performance

Please use this service manual together with the service manual for Order No. VMD9606M135
Model No. NV-SX3EG/B

Please correct the parts numbers as follows.

Interchangeability Code				See the I/C column on the following Part Number list.									
A	Parts	Production	B	Parts	Production	C	Parts	Production	D	Parts	Production	E	Addition
	Original	Early		Original	Early		Original	Early		Original	Early	F	Deletion
	New	Late		New	Late		New	Late		New	Late	G	Other
Part Number													
Ref. No.	Original Part No.		New Part No.		Part Name & Description		I/C	Remarks					
616(5)	VXP1790		VXP1828		MF RING U		B						
C229	ECUX1H270JCV		ECUX1H820JCV		C.CAPACITOR		B						
C231	ECUX1H270JCV		ECUX1H820JCV		C.CAPACITOR		B						
C228	ECUX1H470JCV		ECUX1H181JCV		C.CAPACITOR		B						
C230	ECUX1H470JCV		ECUX1H181JCV		C.CAPACITOR		B						

Service Manual

Supplement

Video Product

Effective from : First Production

Model No. NV-SX3EG/B
NV-SX30EG/B
NV-SX50EG/B/EN

Subject : Correction of Service Manual

Please use this service manual together with the service manual for Order No. (Model No.)
VMD9606M135 (NV-SX3EG/B), VMD9709017C8 (NV-SX30EG/B, SX50EG/B/EN)

Please correct the parts numbers as follows.

Interchangeability Code

Parts	Production	Parts	Production	Parts	Production	Parts	Production	E	Addition
A	Original	↔	Early	B	Original	→	Early	F	Deletion
	New	↔	Late		New	→	Late	G	Other

Part Number

Ref. No.	Original Part No.	New Part No.	Part Name & Description	I/C	Remarks
509 (5)	VXU1419	VXU1437	ZOOM BUTTON U.	G	NV-SX3 series

Part Number

Ref. No.	Original Part No.	New Part No.	Part Name & Description	I/C	Remarks
622 (5)	VXP1828	VJB00Z01	FRONT FLX. CARD C.B.A.	G	NV-SX30 series

Part Number

Ref. No.	Original Part No.	New Part No.	Part Name & Description	I/C	Remarks
620 (5)	VXP1828	VJB00Z01	FRONT FLX. CARD C.B.A.	G	NV-SX50 series

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INTERNAL REFERENCE CODES

NOTE: This chart is only for internal reference.
Do not order any parts according to these codes.

P.C.B.	FILM CODE
MAIN	HOYT00-23418
EVF & DC JACK	HOYT02-28229
CCD FLEXIBLE CARD	HOYT00-22250
S/S & POWER SW	HOYT01-00V80
MIC/AV	HOYT00-04643
ECM/REMO/IR	HOYT00-00X95
FRONT FLEXIBLE CARD	HOYT00-00X96
S/EDIT	HOYT00-03D49
MF SENSOR	HOYT00-00Y08
EJECT SW	HOYT01-00X54

Service Manual

General Description
Adjustment Procedures
Disassembly/Assembly
Service Hints

Panasonic **VHS-C**

S **VHS-C**

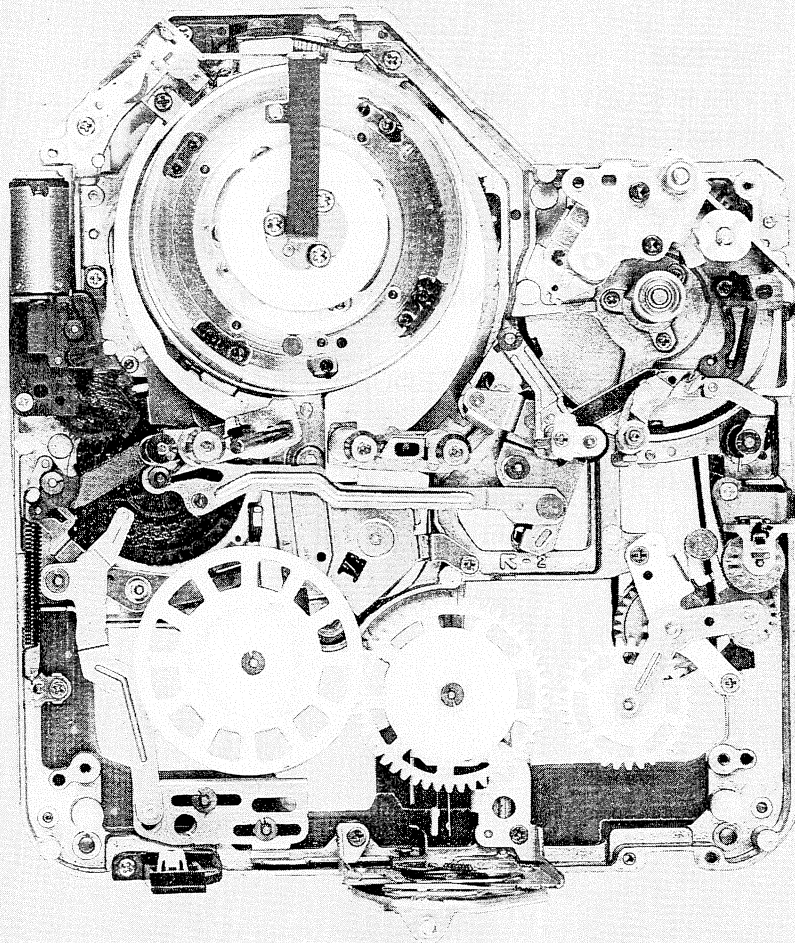
VHS-C MOVIE

DL-MECHANISM

(Since 1991 Models)



V11317



Panasonic

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WARNING

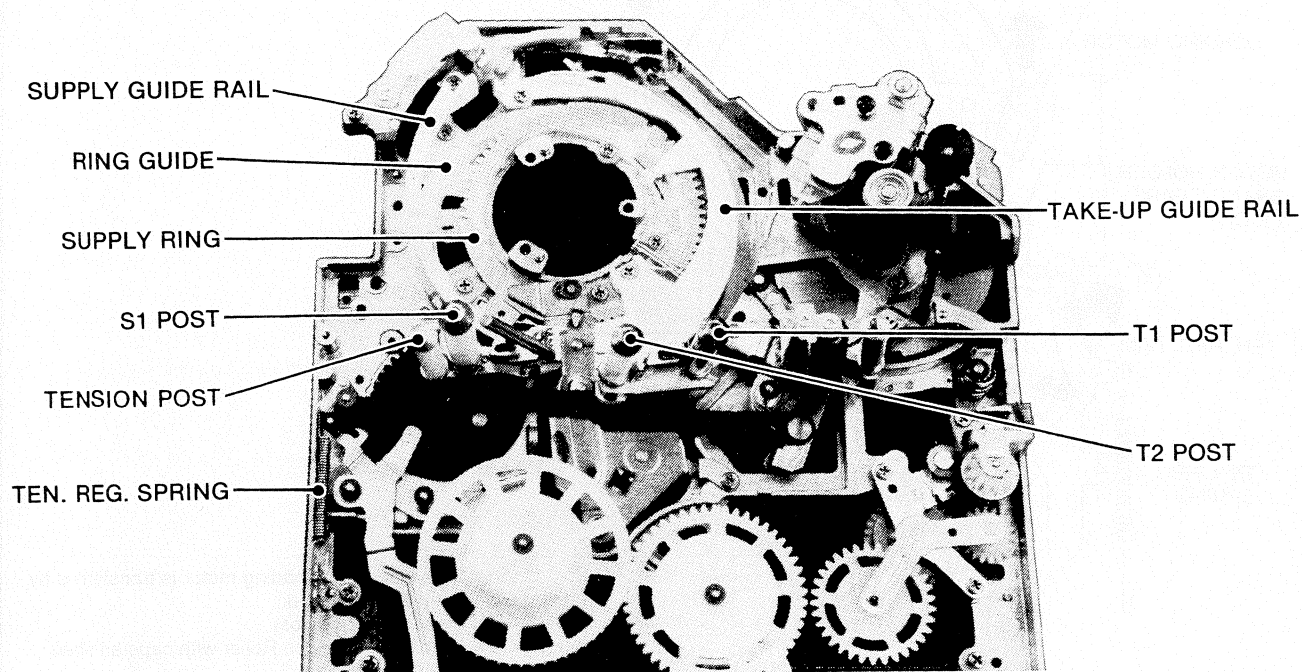
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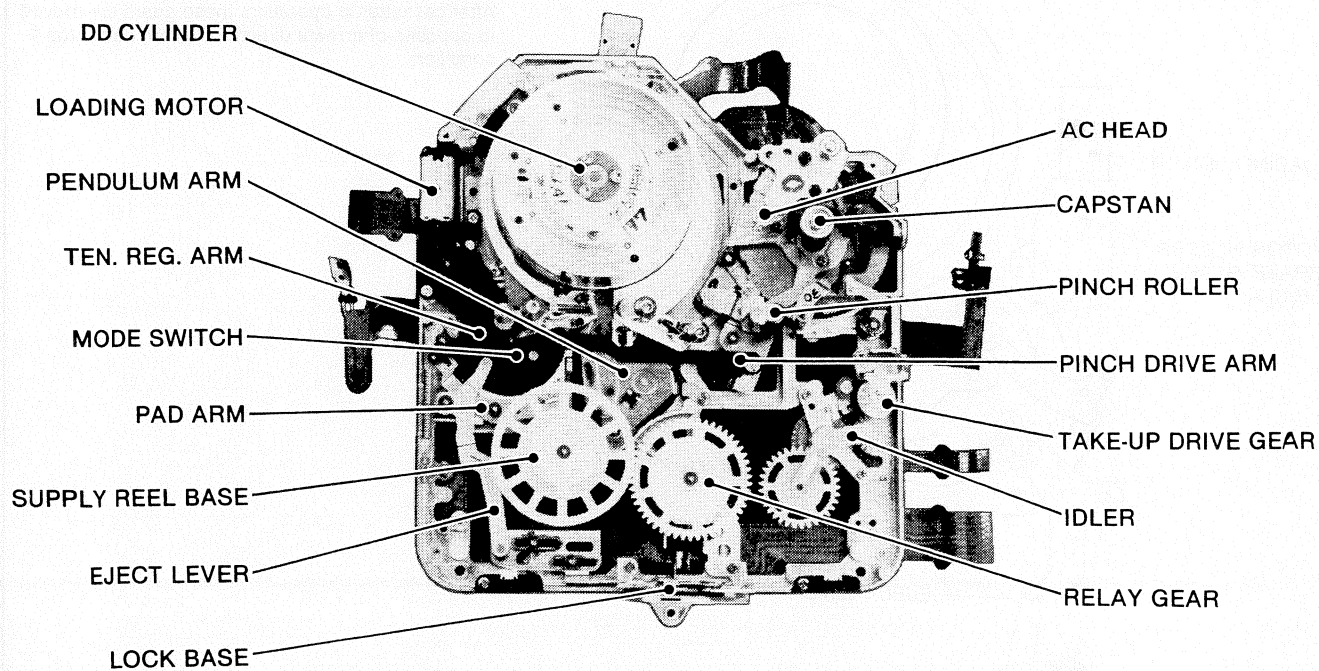
1	MOVEMENT OF MECHANISM	1
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1 MOVEMENT OF MECHANISM

1. Name of Mechanism



* TAKE-UP RING is located underneath of RING GUIDE.



2.Mechanical Operation

2-1. Loading operation

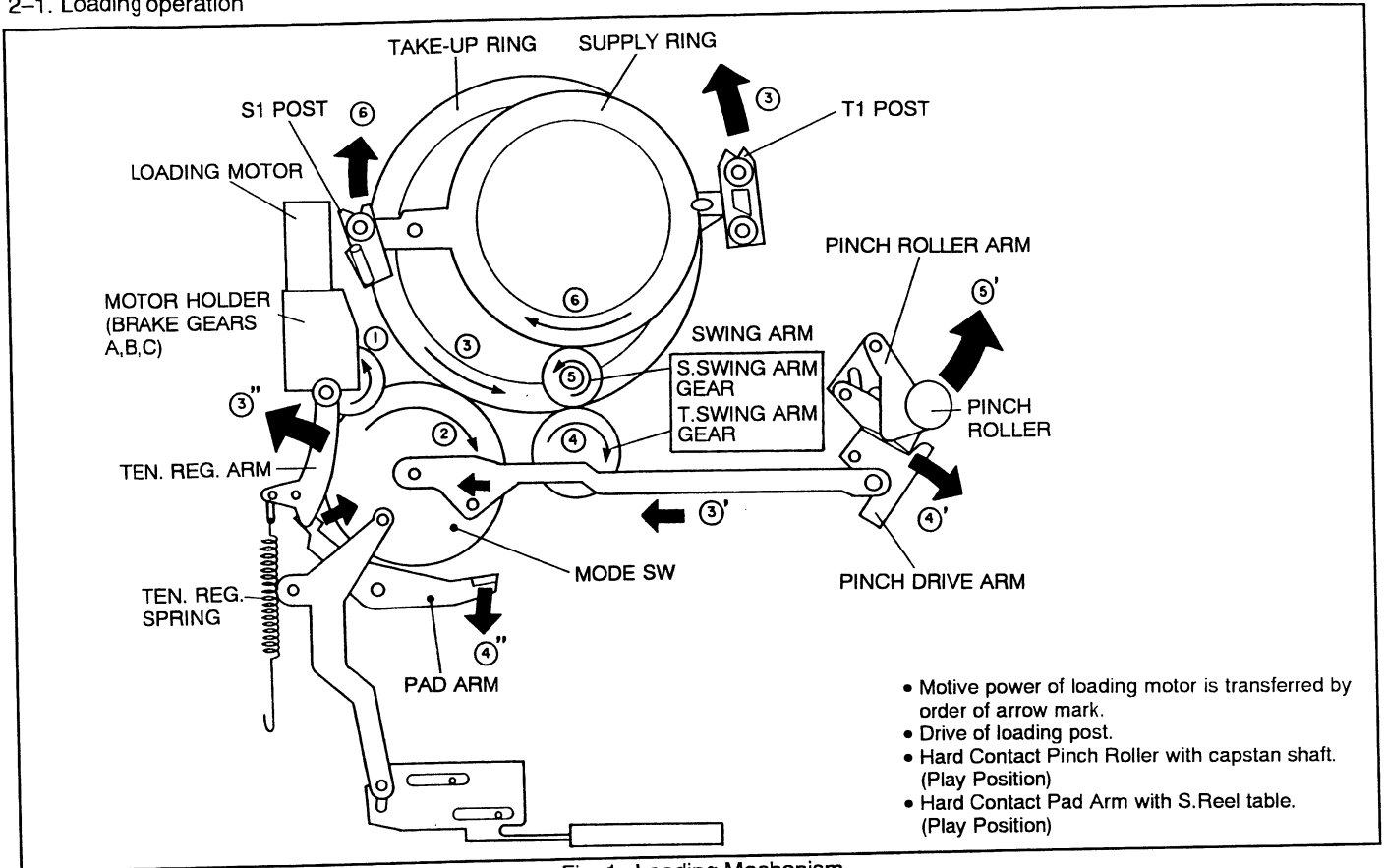


Fig. 1 Loading Mechanism

2-2. Eject operation

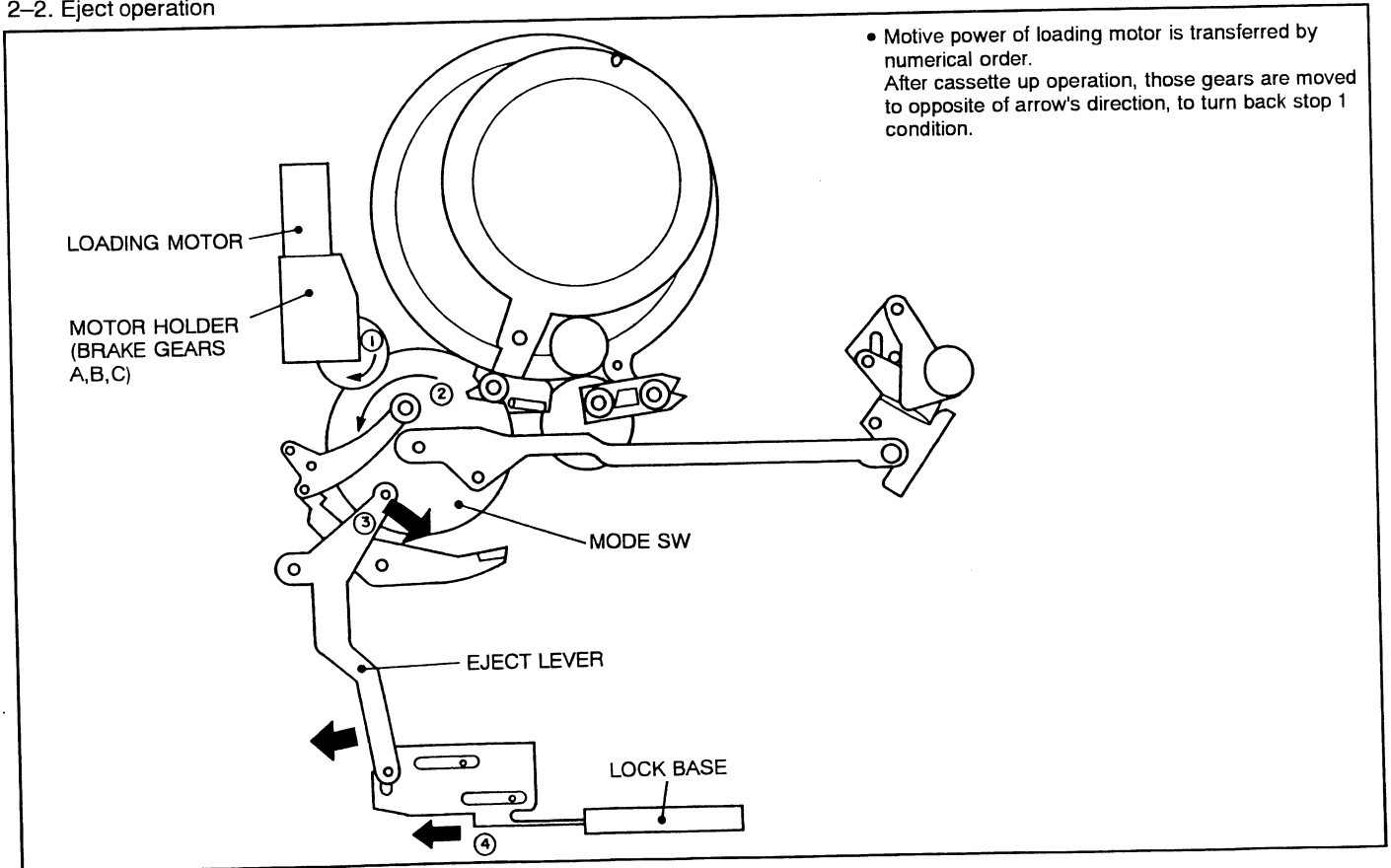


Fig. 2 Unloading Mechanism

3. Movement of Reel Table

3-1. FF operation

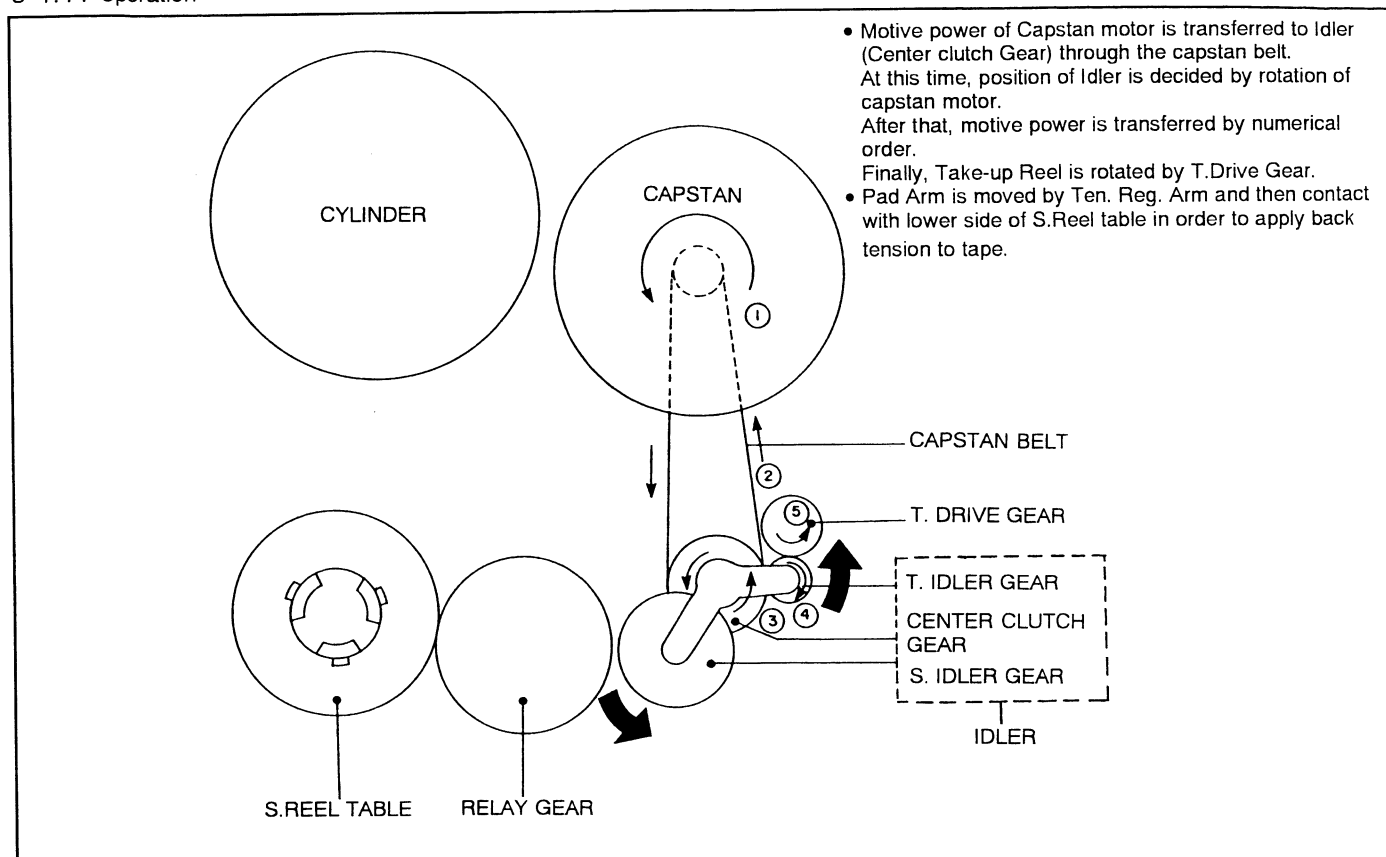


Fig. 3 Take-Up side of Reel Drive

3-2. REW operation

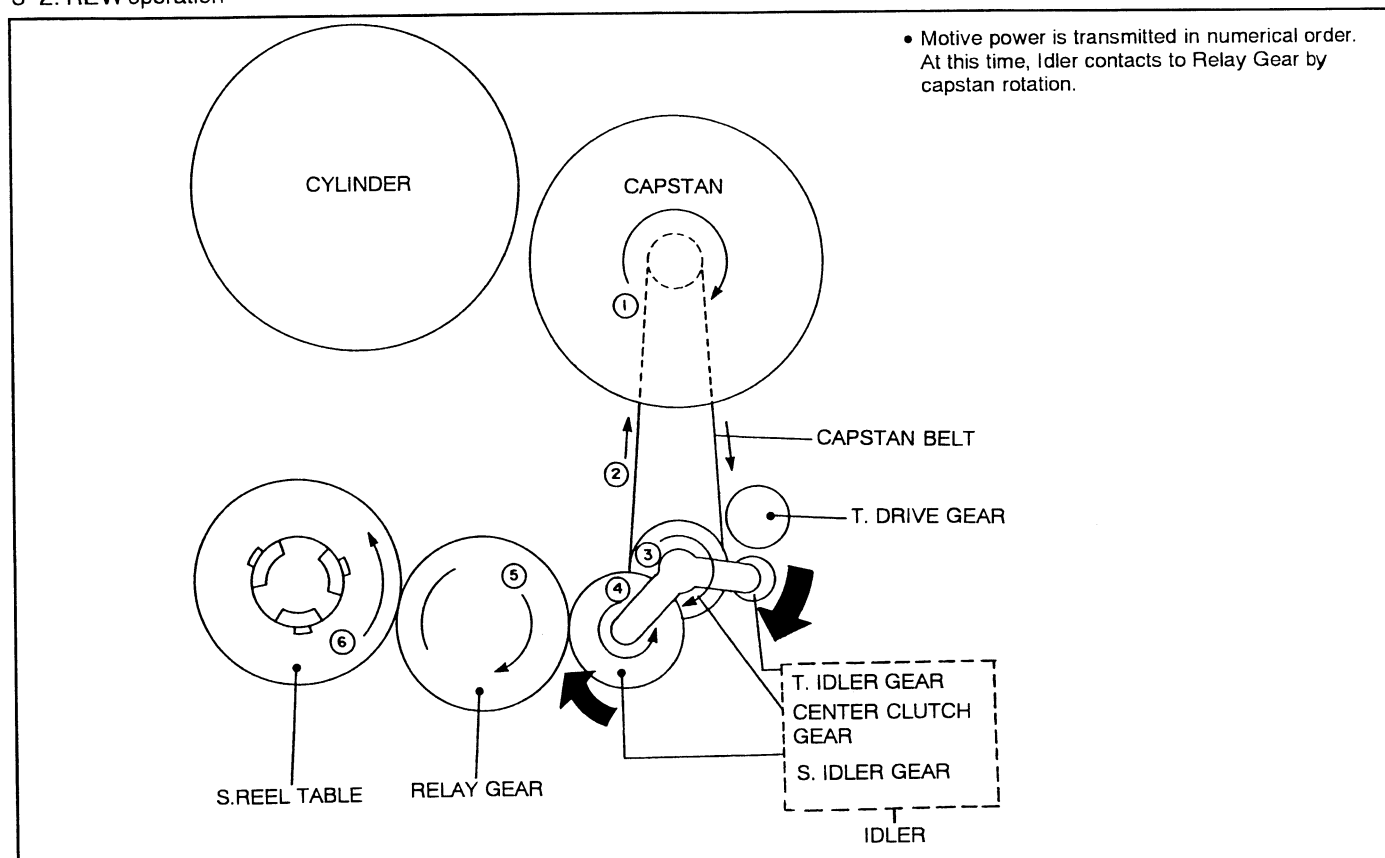


Fig. 4 Supply side of Reel drive

2 ALIGNMENT OF MECHANISM

Following mechanical phase condition is important for mechanical alignment.

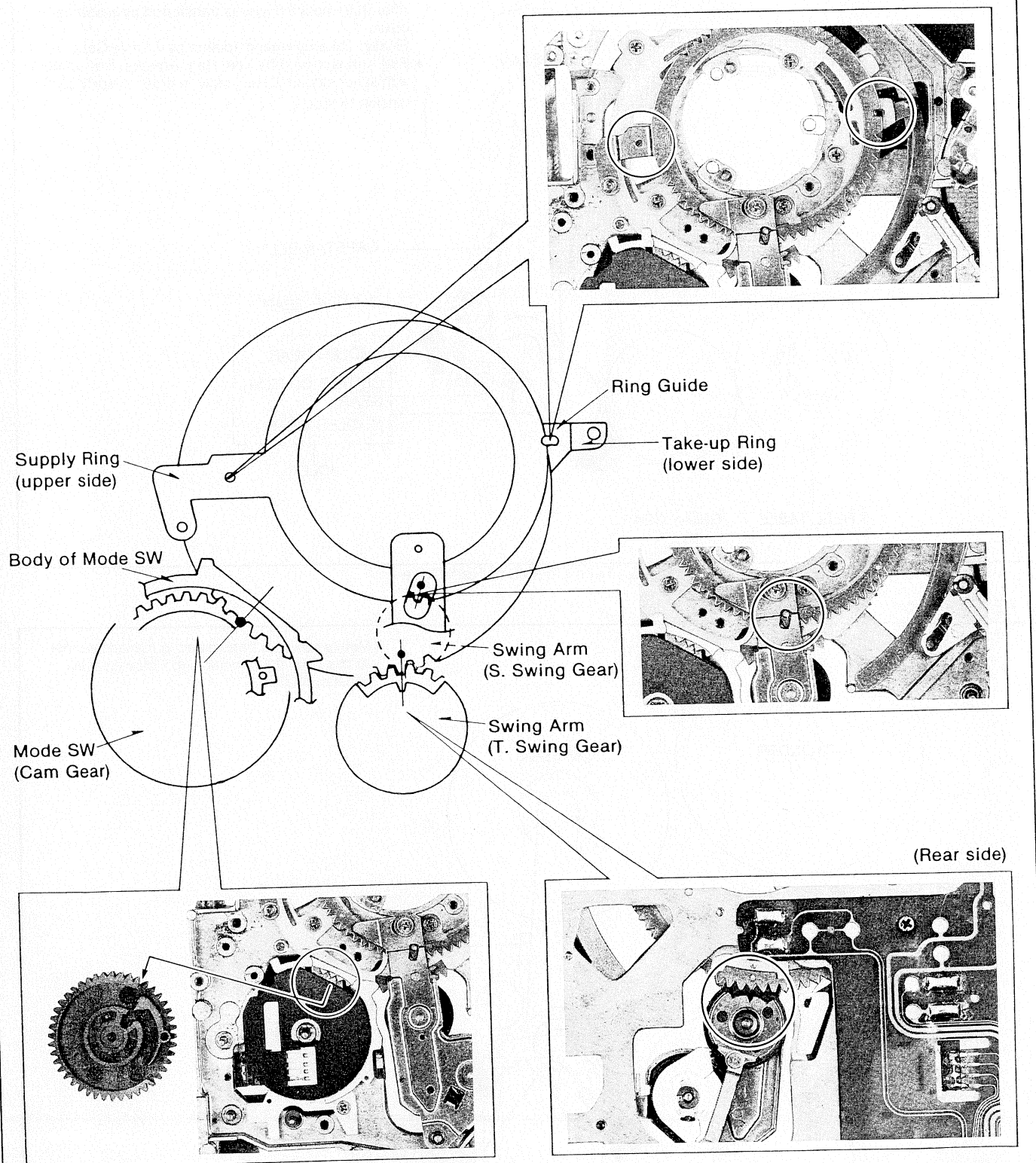
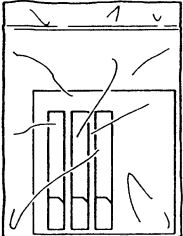
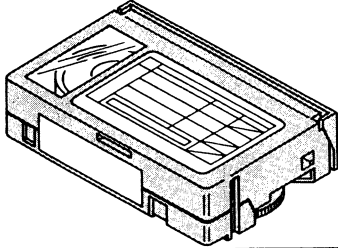
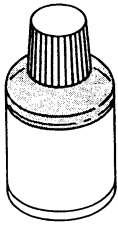
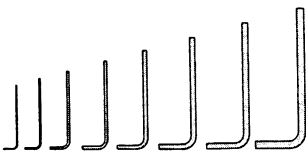
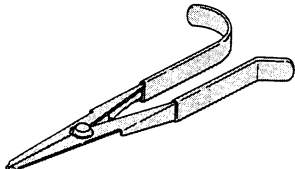
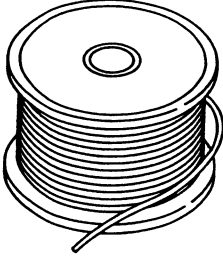
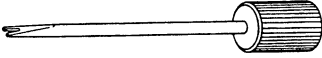
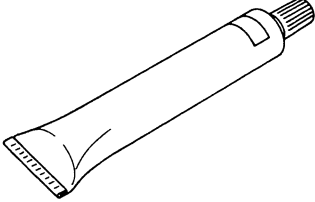


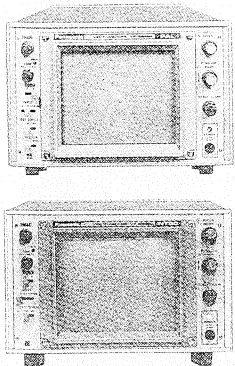
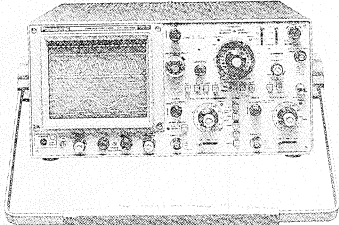
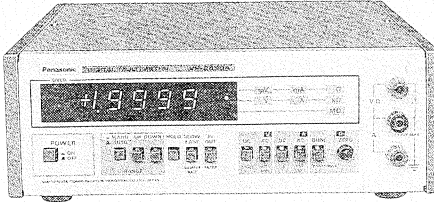
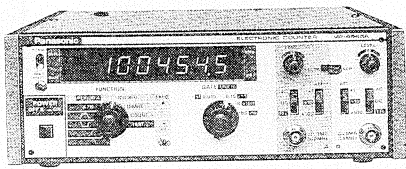
Fig. 5 Mechanism Phase

SERVICING FIXTURES & TOOLS FOR MOVIE CAMERA

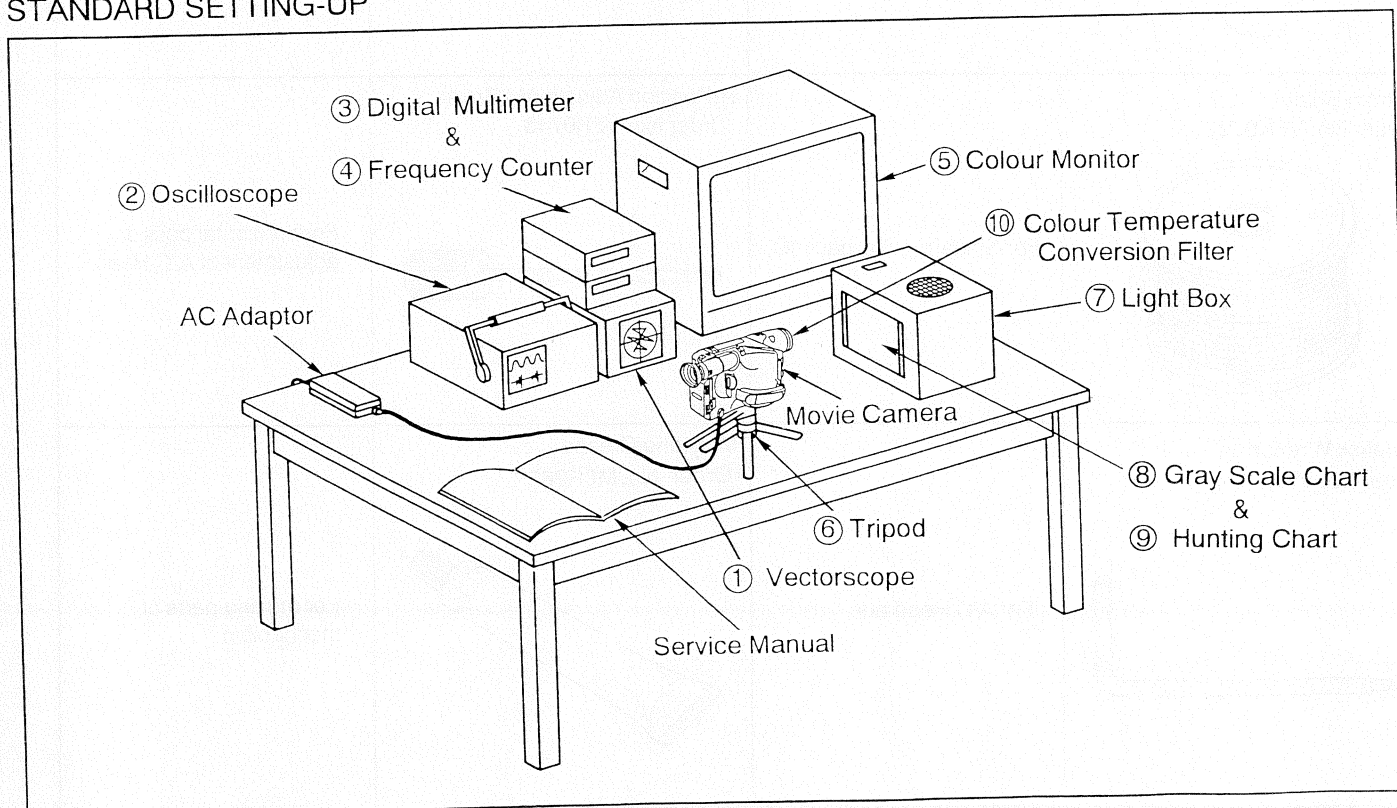
ITEM	PURPOSE	ITEM	PURPOSE
Head Cleaning Stick Order No. VFK27 	For head cleaning	VHS-C Alignment Tape NTSC: Order No. VFM8081HQPP PAL: Order No. VFM8180HUPF 	For 1)Tape Interchangeability adj. 2)Checking colour
Solder Flux Order No. RZZ0320 	For smooth and secure soldering	Hex. Key Wrench set (8 pcs.) Order No. VFK0326  0.7mm,0.9mm,1.2mm,1.5mm, 1.6mm,2.0mm,2.4mm,3.0mm	For height adjustment of Tape Guide Posts
Oil Order No. VFK0131 	For Reel Shaft & Capstan Shaft	Retaining Ring Remover Order No. VFK0335 	For removal of Retaining Ring
0.4mm Solder Order No. VFK0732 	For Soldering flat-pack IC	H-Position Adjustment Driver Order No. VFK0743 	For horizontal position adjustment of A/C Head
Asterisk Wrench Order No. VFK0824 	For A/C Head adj.	Molytone Grease Order No. M0R265 	For moving parts of mechanism

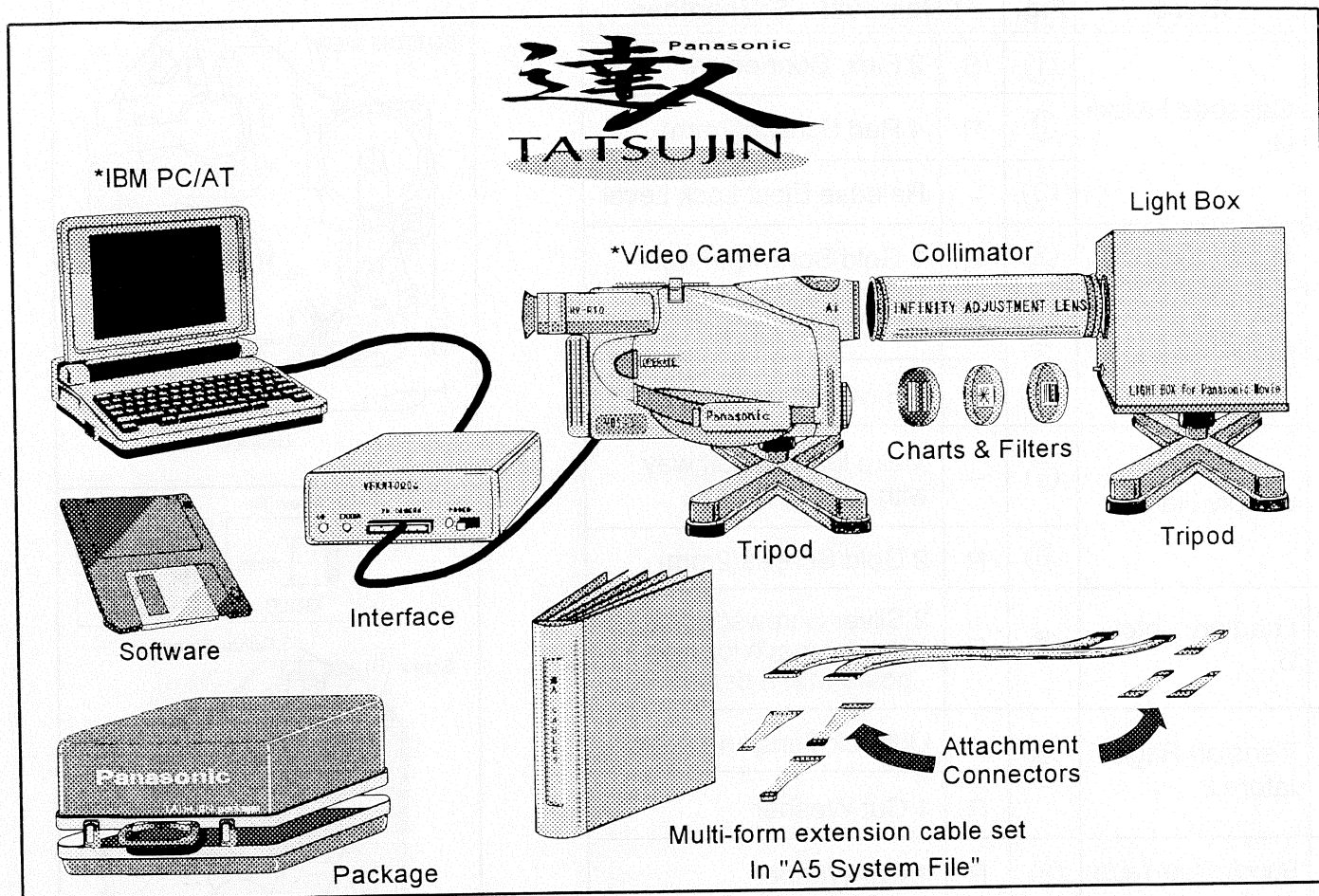
SERVICE MEASUREMENT EQUIPMENTS

To achieve the movie camera servicing, following adjustment equipments should be required.
(For more detail, please refer to each models Service Manual.)

① VECTOR SCOPE 	② OSCILLOSCOPE  CH1,CH2 5mV/div 2mV/div 1mV/div CH1 SIG OUT CH3 EXT DC ~ 100MHz DC ~ 50MHz DC ~ 25MHz DC ~ 10MHz DC ~ 70MHz	③ DIGITAL MULTIMETER  AC: 200mV ~ 500V (5 Range) DC: 200mV ~ 1000V (5 Range) Resistor: 200Ω ~ 20MΩ (6 Range) AC Current: 200mA, 1A (2 Range) DC Current: 200mA, 1A (2 Range)
④ FREQUENCY COUNTER  CH-A 25mVrms CH-B 25mVrms DC ~ 10MHz DC ~ 100MHz	⑤ COLOUR MONITOR (Colour TV) ⑥ TRIPOD ⑦ LIGHT BOX (order NO. : VRD93MLB) ⑧ GRAY SCALE CHART (order NO. : VFK0871S) ⑨ HUNTING CHART (order NO. : VFK0546)	⑩ COLOUR TEMPERATURE CONVERSION FILTER (order NO. : VFK0713(C12)) (order NO. : VFK0716(C2)) ⑪ EVR FIXTURE (order NO. : VFK0644) ⑫ COMMUNICATING CABELS (order NO. : VFK0766A(5P)) (order NO. : VFK0734W(24P)) ⑬ ROM FOR EVR FIXTURE (order NO. : VFK0701ROM * *)

STANDARD SETTING-UP





A new service device kit for Video Camera, "TATSUJIN" kit, is now available from Panasonic. "TATSUJIN" is a Japanese word which means a specialist, expert, or master in English. This naming was made because the kit will make you a "TATSUJIN" of Panasonic Video Camera servicing. The "TATSUJIN" kit consists of the following 3 items which are simply organized in a small package. All of which will drastically improve your productivity of Video Camera servicing in terms of Diagnosis, Adjustment, and Confirmation.

1. PC-EVR. (Interface, Software, Connecting Cables)

It connects a Camera to your IBM PC/AT so that the adjustment and trouble-shooting can be done easily on PC screen. The time used to taken by the camera adjustment will be reduced more than 60%. In addition, its diagnosis support function helps you to improve the service efficiency drastically. The conventional EVR (VFK0644) will be replaced by this new computer-aided system.

2. Optical Set. (Collimator, Charts & Filters, Light Box, Tripods)

All of the optical devices which are indispensable to service a camera but used to take a huge space to set up, are now drastically shrunk into a compact "Desk-top space". Now you can easily aim various charts, COLOUR-BAR, GRAY-SCALE, HUNTING, and WHITE, by simply attaching them to the collimator which is inserted in a compact light box. So that you do not have to worry about restricting external light and measuring the distance from the chart.

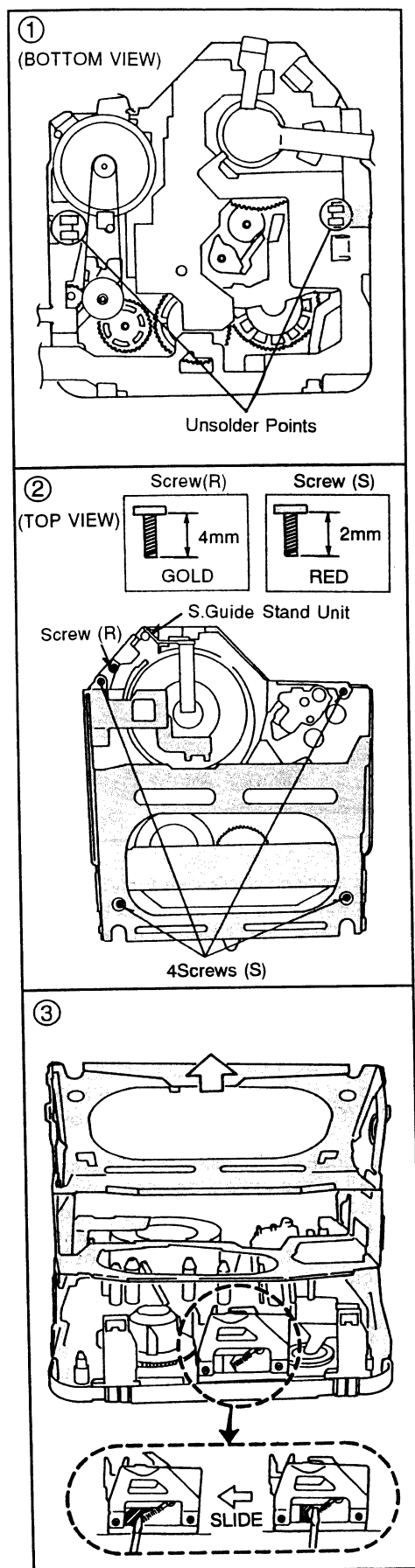
3. Multi-form Extension Cable Set.

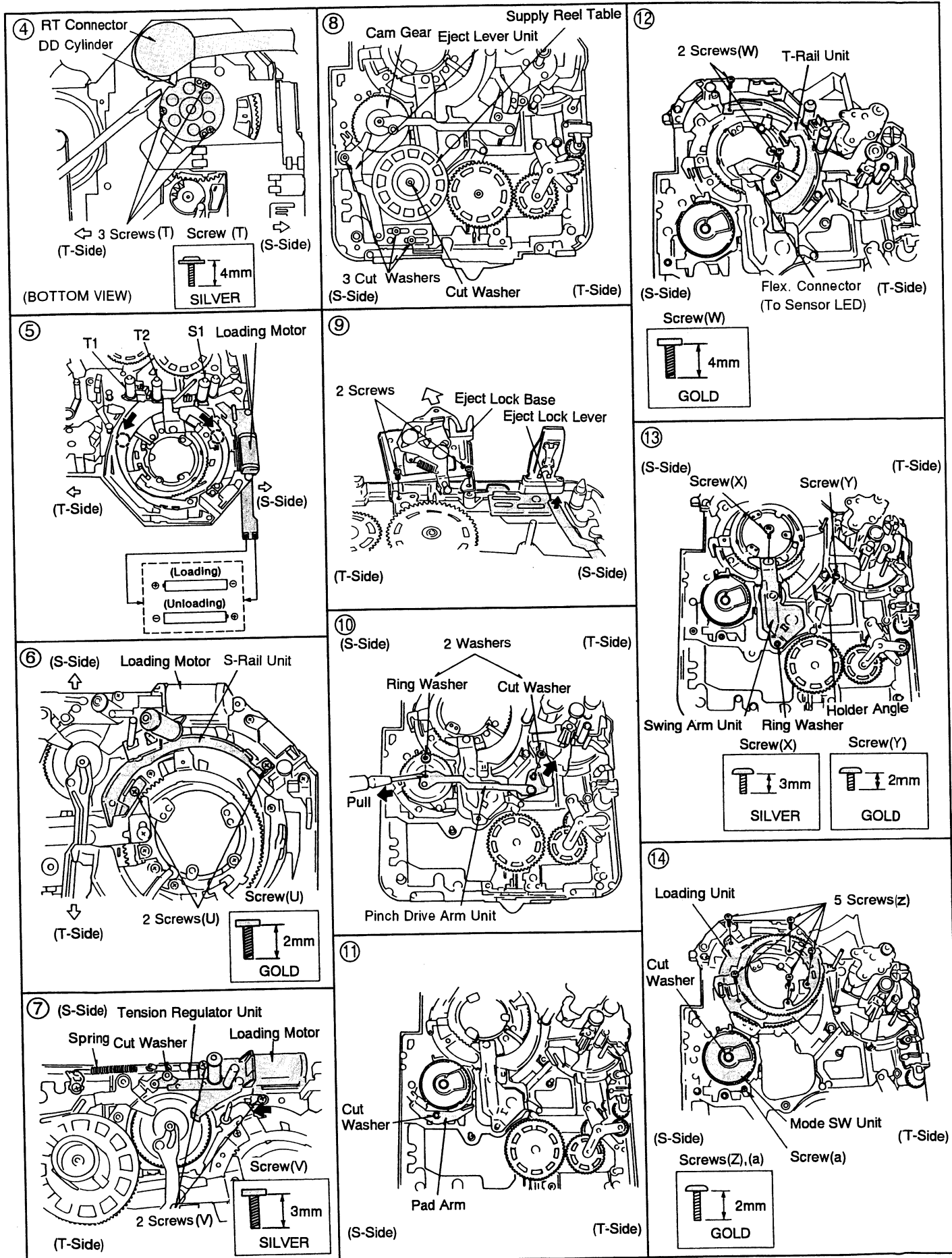
Now you can make any kind of extension cable required, by simply changing the attachment connectors. All of the connectors which cover all extension cables since 1990, are simply organized in a "A5 System File". When you need a new connector for a new model, it can be purchased at extremely low price.

Note: *PC and *Camera are not included in the kit. The minimum requirement of the PC is 80286 CPU, 1MB RAM, and MS-DOS 3.2. For further information, please contact Video Equipment Division.

3 DISASSEMBLY PROCEDURES OF MECHANISM

No.	Items	Fig.	R:Removal / S:Unsolder	
1	Cassette Holder U.	①	S	2 Flex. Connectors
		②	R	4 Red Screws(2mm)
		③	—	Release Eject Lock Lever
2	S.Guide Stand U.	②	R	1 Gold Screw (4mm)
3	DD Cylinder U.	④	R	RT Connector
			R	3 Silver Screws(4mm)
4	Supply Rail U.	⑤	—	Make loading half way with a 1.5V battery.
		⑥	R	2 Gold Screws(2mm)
5	Loading Motor U.	⑦	R	2 Silver Screws(3mm) *Slightly move loading posts with a battery.
6	Tension Regulator U.	⑦	—	Unhook Tension Spring.
			R	1 Cut Washer
7	Supply Reel Table	⑧	R	1 Cut Washer
8	Eject Lever U.	⑧	R	3 Cut Washers
		⑨	R	2 Screws on Eject Lock Base.
9	Pinch Drive Arm	⑩	R	1 Ring Washer 1 Cut Washer
10	Pad Arm	⑪	R	1 Cut Washer
11	Take-up Rail U.	⑫	R	2 Gold Screws(4mm)
			S	Sensor LED (bottom)
12	Swing Arm U.	⑬	R	1 Gold Screw(2mm)
			R	1 Silver Screw(3mm)
			R	1 Ring Washer
13	Mode SW	⑭	R	1 Gold Screw(2mm)
			R	1 Cut Washer
14	Loading U.	⑭	R	5 Gold Screws(2mm)

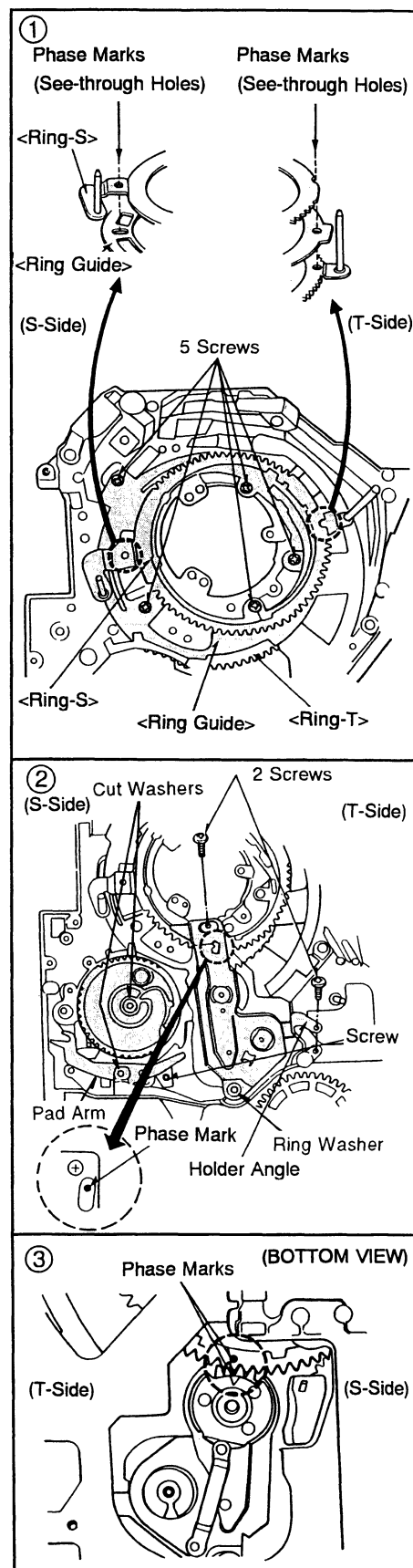


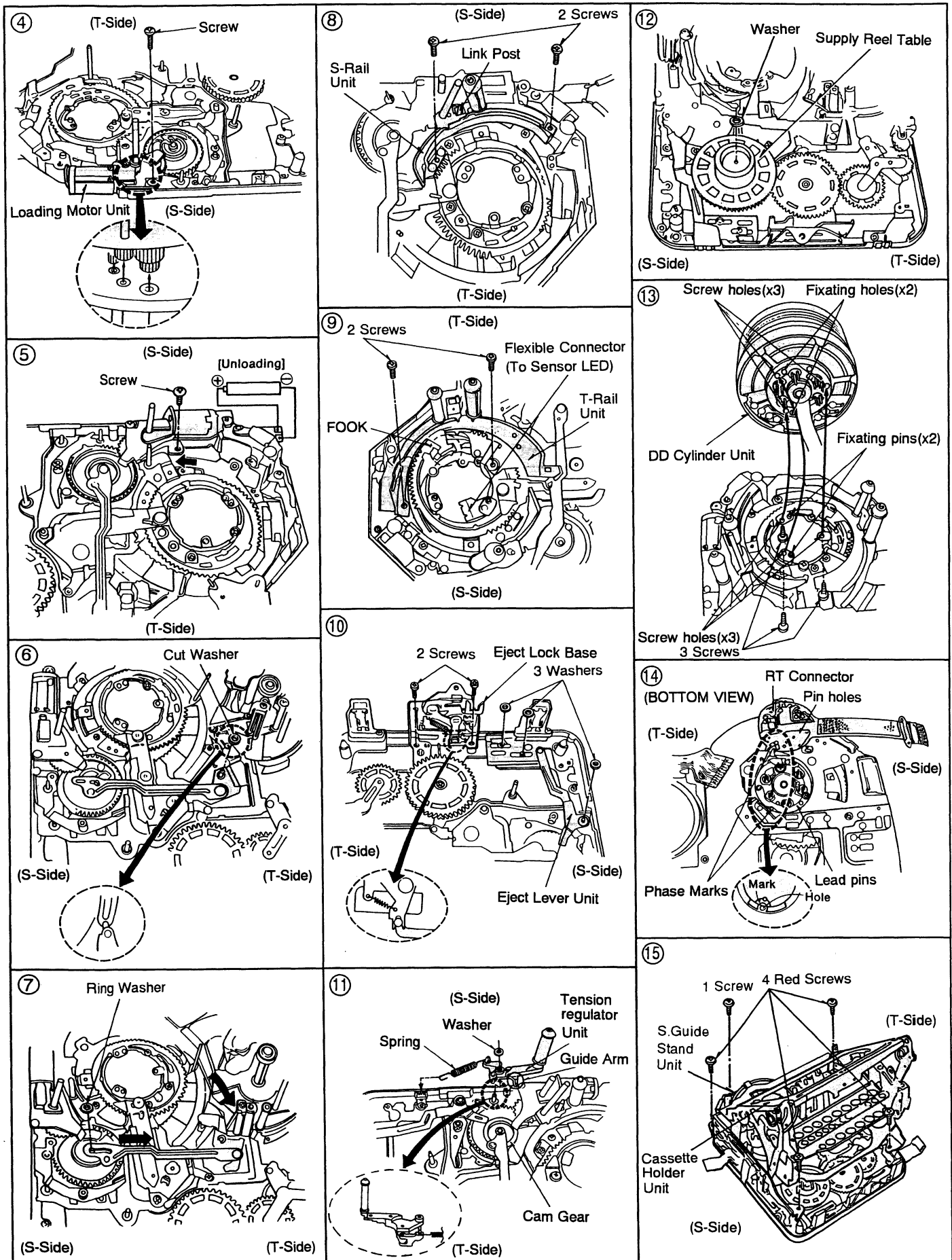


4 ASSEMBLY AND PHASE ADJUSTMENT PROCEDURES OF MECHANISM

ASSEMBLY & PHASE ADJUSTMENT PROCEDURES

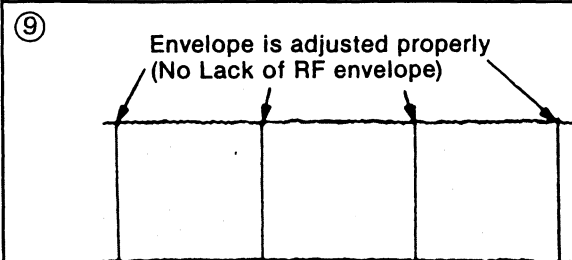
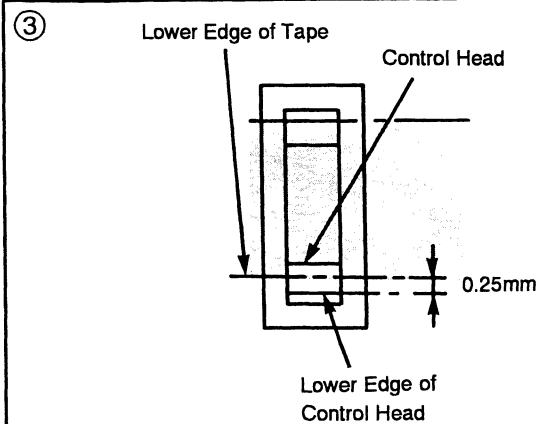
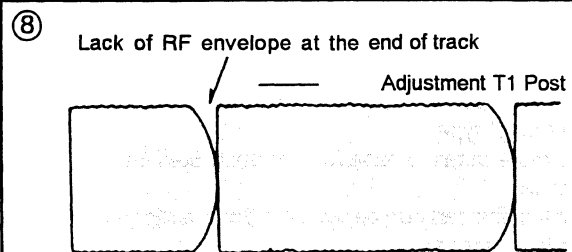
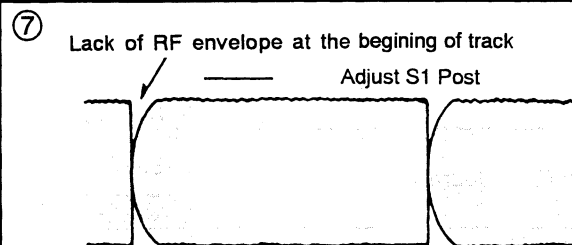
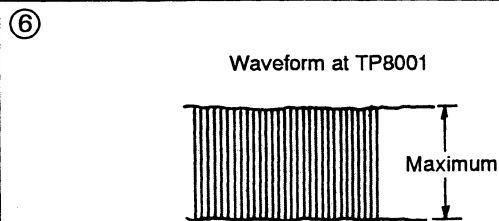
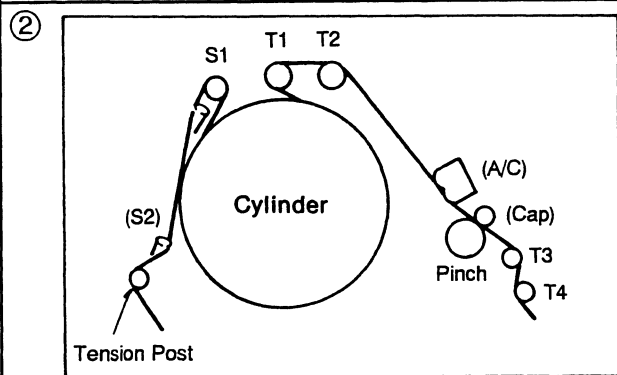
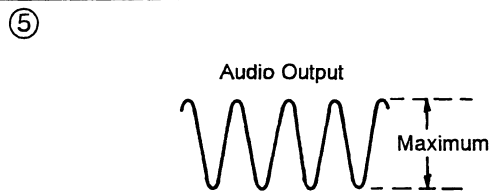
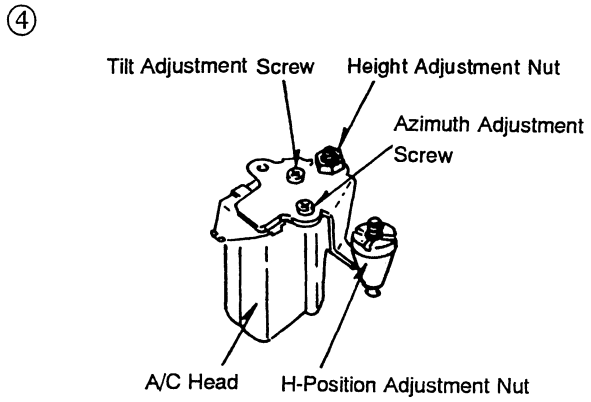
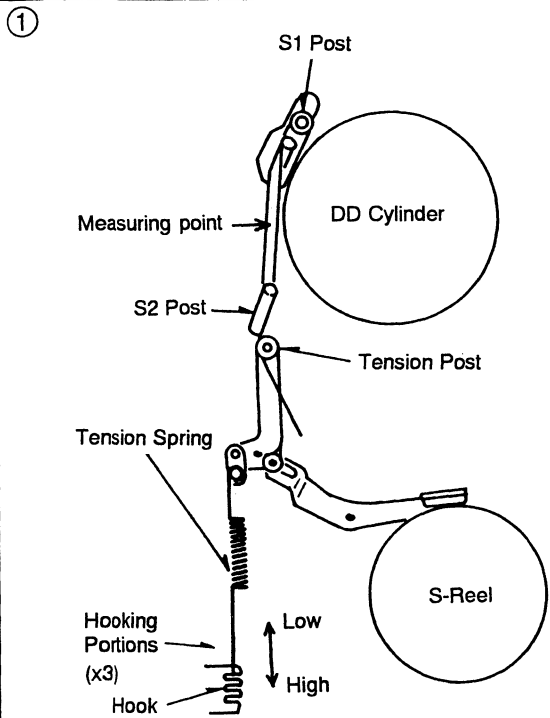
No.	Items	Fig.	A:Assembly / P:Phase Adj. / S: Solder
1	Loading U.	①	A 5 Gold Screws(2mm) P 2 See - through Holes
2	Cam Gear (Mode SW)	②	P See Page 4. (Fig.5) A 1 Cut Washer A 1 Gold Screw(2mm)
3	Pad Arm	②	A 1 Cut Washer
4	Swing Arm U.	②③	P See fig.②,③
		②	A 1 Gold Screw(2mm) with Holder Angle 1 Silver Screw(3mm) A 1 Ring Washer
5	Loading Motor U.	④⑤	A 2 Silver Screws(3mm) *Slightly move loading posts with a battery.
6	Pinch Drive Arm	⑥⑦	A 1 Ring & 1 Cut Washers
7	Supply Rail U.	⑧	A 2 Gold Screws(2mm)
8	Take-up Rail U.	⑨	A 2 Gold Screws(4mm) S Sensor LED (bottom)
9	Eject Lever U.	⑩	A 3 Cut Washers A 2 Screws on Eject Lock Base.
10	Tension Regulator U.	⑪	A 1 Cut Washer - Hook Tension Spring
11	S. Reel Table	⑫	A 1 Cut Washer
12	DD Cylinder U.	⑬	A 3 Silver Screws(4mm)
13	RT Connector	⑭	P See fig.⑭ A *No Screw
14	S.Guide Stand U.	⑮	A 1 Gold Screw (4mm)
15	Cassette Holder U.	⑮	A 4 Red Screws(2mm) S 2 Flex. Connectors





5 INTERCHANGEABILITY ADJUSTMENT

No.	Items	Fig.	Adjustment Procedures	
1	Back Tension	①	Equipments	1. Tension Meter (VFK0132) 2. VHS-C Cassette Tape
			Specification	16.5g-21.0g
			1. Play back a tape. 2. Set Tension Meter at the measuring point, and read the value. 3. If the value is out of specification, change the hooking position of Tension Spring.	
2	Height of Tape Guide Posts (Preliminary Adjustment)	② ④	Equipments	1. Hex Wrench 2. VHS-C Cassette Tape
			Specification	No tape curling
			1. Play back a tape. 2. Confirm the tape travel at upper and lower guides on posts S1, T1, T2 and T3. 3. If curling is apparent, adjust the height of posts by turning the top of post with Hex Wrench.	
3	Height of A/C Head (Preliminary Adjustment)	③ ④	Equipments	1. Box Wrench 2. VHS-C Cassette Tape
			Specification	See Fig. ③
			1. Play back a tape. 2. Confirm that the tape runs 0.25mm above the lower edge of Control Head. 3. If does not correct, turn Height Adjustment Nut in either direction as necessary to correct it.	
4	Tape Interchangeability	⑤ ⑥ ⑨	Equipments	1. Dual Trace Oscilloscope 2. Alignment Tape 3. H-Position Adjustment Driver 4. Asterisk Wrench
			Specification	Azimuth :Maximum Audio Output H-Position :Maximum RF Output RF Envelope :No Lack of RF Output
			Preparation: 1. Press Tracking Up / Down buttons at the same time to set the tracking control in the center of the variable range. 2. Play back the monoscope portion (6KHz, MONO) of the Alignment Tape.	
		④ ⑤	Adjustments: Azimuth Adjustment for A/C Head 1. Connect the oscilloscope to Audio Line Output. 2. Adjust Azimuth Adjustment Screw so that the audio output level is at the maximum.	
		⑤ ⑥	Horizontal Position Adjustment for A/C Head 1. Connect the oscilloscope to RF Output terminal (e.g.: TP8001). 2. Adjust the horizontal position by turning H-Position Adjustment Nut so that the RF envelope is at the maximum.	
		② ⑦ ② ⑧	Height Adjustment for Tape Guide Posts 1. When the RF envelope is lacked at the beginning of the track, adjust the height of S1 post. 2. When the RF envelope is lacked at the end of the track, adjust the height of T1 post.	



6 SERVICE HINTS

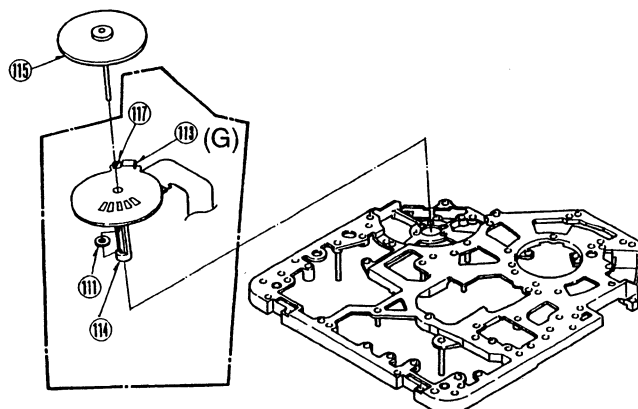
FAULT FINDING CHART FOR DL MECHANISM

REF.	SYMPTOMS	PARTS TO BE CHECKED		
		PARTS NAME	PARTS NO.	REF. NO.
(A)	No Mechanical Operation	BRAKE GEAR (B)	VDG0822	(3)
		MODE SWITCH (CAM GEAR)	VSR0096	(15)
		S-RAIL UNIT	※ 1 VXA5153 (VXA4532)	(26)
		S-RING UNIT	VXA4519	(20)
(B)	Power Cut Off	PINCH ARM UNIT	VXL2139	(32)
		CYLINDER UNIT	※ 2 NOTE	(41)
(C)	Tape Slack	REEL BASE (S)	VDR0226	(1)
		PAD ARM UNIT	VXL2144	(35)
		T-DRIVE GEAR UNIT	VXP1313	(40)
		IDLER UNIT	※ 1 VXL2399 (VXL2147)	(38)
(D)	Tape Jam	PINCH ARM UNIT	VXL2139	(32)
		REEL BASE (S)	VDR0226	(1)
		T-BOAT GUIDE	VMD1851	(14)
(E)	Faulty Loading	PINCH DRIVE ARM UNIT	VXL2140	(33)
		S-RAIL UNIT	※ 1 VXA5153 (VXA4532)	(26)
		REEL BASE (S)	VDR0226	(1)
		BRAKE GEAR (B)	VDG0822	(3)
		SWING ARM UNIT	※ 1 VXL2401 (VXL2133)	(30)
		T-BOAT GUIDE	VMD1851	(14)
(F)	Noisy Playback Picture	T-BOAT GUIDE	VMD1851	(14)
		TENSION REGULATOR ARM UNIT	VXL2145	(36)
		T-RING UNIT	VXA4518	(19)
		S-RING UNIT	VXA4519	(20)
		T3 ARM UNIT	VXL2415	(31)
(G)	Periodic Noise on Playback Picture	AC HEAD UNIT	※ 1 VXA5201 (VXA4998)	(28)
		MR HEAD	VBK0059	(113)
(H)	No Eject Operation	EJECT LEVER (1) UNIT	※ 1 VXL2393 (VXL2130)	(29)
		MECHANICAL PHASE ADJUSTMENT		
(I)	Audio Wow	T-DRIVE GEAR UNIT	VXP1313	(40)
(J)	Scratch on Tape	TENSION REGULATOR ARM UNIT	VXL2145	(36)
(K)	Stop after few Sec. Play	T-REEL SENSOR UNIT	VXA4997	(25)

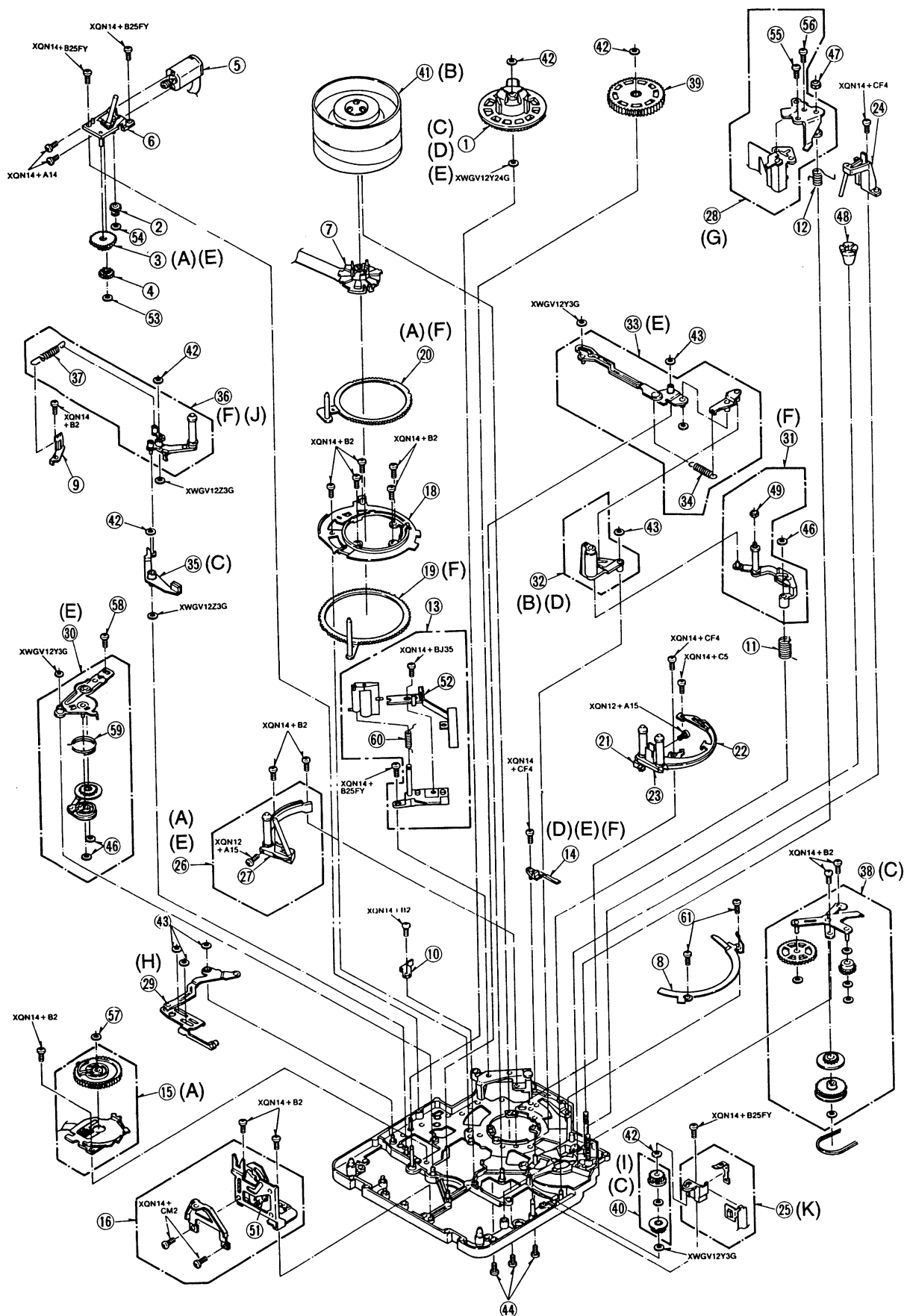
※ 1 **NOTE:** Some of the parts have 2 kinds of part number. Basically, part number in the bracket "()" is an old (early) type.

For more detail, please refer to each Service Manual.

※ 2 **NOTE:** Confirm the part number with the Service Manual model by model.



VTR MECHANISM SECTION



Note: Symbols (A)-(K) beside the reference number of each parts show the symptom concerned with the parts (Refer to page 14).

Service Manual

Supplement

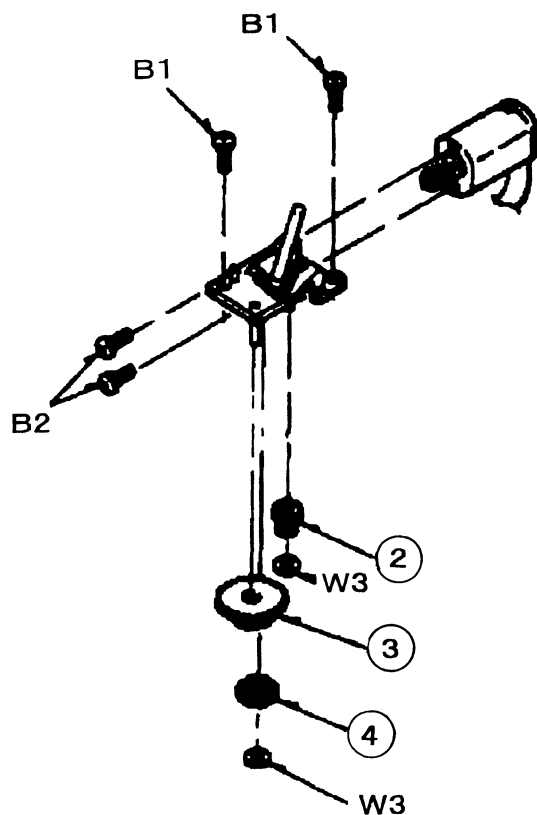
Effective from : First Production

Video ProductModel No. DL Mechanism's
Movie Camera**Subject : Correction of Parts List**

Please use this service manual together with the service manual for DL Mechanism's Movie Camera.

Please correct parts list as follows.

Ref. No.	Part No.	Part name	Pcs
2 (1)	VDG0821	BRAKE GEAR (A)	1
3 (1)	VDG0823	BRAKE GEAR (C)	1
4 (1)	VDG0822	BRAKE GEAR (B)	1



⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

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